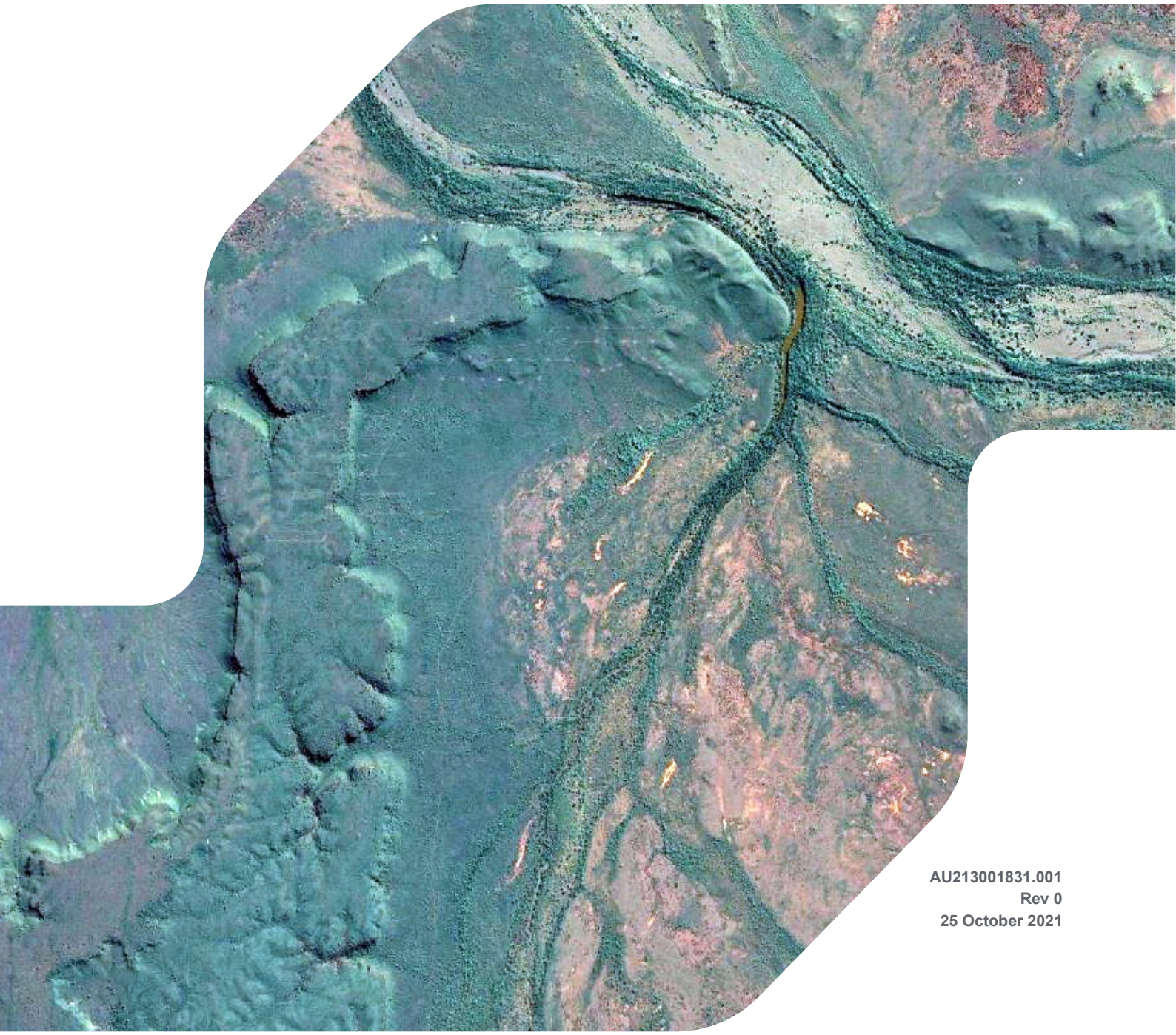
DETAILED FLORA AND VEGETATION ASSESSMENT

Robe Mesa and Robe East extension deposits



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SUMMARY

Background

RPS AAP Consulting Pty Ltd (formerly RPS Australia West Pty Ltd) (RPS) was commissioned by CZR Resources to undertake a detailed flora and vegetation assessment for the Yarraloola project, incorporating portions of the Robe Mesa and Robe East Extension Iron Ore Deposits within exploration tenements E 08/1060-1 (636 hectares (ha)) and E 08/1686-1 (2,384 ha) (hereafter referred to as 'the survey area').

The Yarraloola Project is located approximately 95 kilometres (km) east of Onslow and 30 km west of Pannawonica in the Pilbara region of Western Australia, within the Shire of Ashburton (Figure A).

Survey objectives and scope of works

The objectives of this detailed flora and vegetation assessment were to:

- Identify and characterise the flora and vegetation within the survey area, via provision of a comprehensive flora inventory and vegetation unit and condition mapping.
- Identify the presence and extent of conservation significant flora and ecological communities that are currently listed under the state *Biodiversity Conservation Act 2016* (BC Act) and the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) within the survey area.
- Describe the flora and vegetation values present, or likely to be present within the survey area that may be directly or indirectly impacted by the implementation of the Yarraloola project, including an analysis of the significance of flora and vegetation in local, regional and state contexts.
- Map the location and extent of conservation significant flora and vegetation within the survey area.

This detailed flora and vegetation assessment included a:

- Two-phase detailed flora and vegetation survey
- Targeted Threatened flora (TF) and Priority flora (PF) survey of known or potentially suitable habitat for each of the target species within the survey area at the appropriate time (the documented peak flowering time).

This report documents the methods and outcomes of the desktop study and detailed flora and vegetation survey undertaken between June and September 2021.

Detailed flora and vegetation survey findings

- A total of 354 vascular flora taxa were recorded by the current survey of which 343 (96.9%) were native species and 11 (3.1%) were naturalised alien (weed) species. The taxa recorded represent 52 families and 144 genera
- No TF species listed under the BC Act or the EPBC Act were recorded within the survey area
- Three PF species were recorded within the survey area *Triodia pisoliticola* (P3), *Eragrostis crateriformis* (P3) and *Goodenia nuda* (P4)
- Five species of 'other' conservation significance based on one or more criteria listed in Environmental Protection Authority (2016) were recorded within the survey area. Four of these taxa (*Ammannia multiflora, Bergia ?henshallii, Dysphania glomulifera* subsp. *eremaea* and *Marsilea costulifera*) represented significant extensions of their known ranges or new localities, and one taxon (*Abutilon* aff. *fraseri*) had anomalous features indicating a potential new species. A specimen will be submitted to the Western Australian Herbarium for curation
- Eleven naturalised alien (weed) species were recorded for the survey area, representing 3.1% of the total flora taxa recorded. **Euphorbia hirta* (asthma plant) was the most wide-spread weed within the survey area and was recorded in 19 of the 50 floristic quadrats

- The Western Australian Organism List database was searched to determine the legal status of each weed recorded, and any control requirements that may apply under the *Biosecurity and Agriculture Management Act 2007*. None of the three weed species recorded were determined to be Declared Pests or Weeds of National Significance
- A total of 16 vegetation units were described and mapped for the survey area across ten broad landforms as follows:
  - Aar.Tw – *Acacia arida* mid sparse shrubland over *Triodia wiseana* hummock grassland on mesa tops
  - El.Aa.TwTp – *Eucalyptus leucophloia* low isolated clumps of trees over *acacia arida* isolated clumps of shrubs over *Triodia wiseana and T. pisoliticola* sparse hummock grassland on mesa breakaways and gorges
  - El.Ab.Tw – *Eucalyptus leucophloia* low isolated trees over *Acacia bivenosa* mid open shrubland to isolated shrubs over *Triodia wiseana* hummock grassland on mesa slopes
  - Ch.Ai.Te – *Corymbia hamersleyana* low isolated trees over *Acacia inaequilatera* mid to tall sparse shrubland over *Triodia epactia* hummock grassland on mesa footslopes
  - Ab.Tw – *Acacia bivenosa* and *Acacia* spp. mid open shrubland over *Ptilotus* spp. and *Senna* spp. low sparse shrubland over *Triodia wiseana* hummock grassland on mesa footslopes
  - Aspp.Tw – *Acacia* spp. mid isolated shrubs over a mixed low open to sparse shrubland over *Triodia wiseana* open hummock grassland on low basalt hills
  - Aat.Te – *Acacia atkinsiana*, *A. ancistrocarpa* and *A. sclerosperma* subsp. *Sclerosperma* tall shrubland to sparse shrubland over mixed species low sparse shrubland over *Triodia epactia* hummock grassland on flood plains
  - ChAc.Te – *Corymbia hamersleyana* low open woodland over *acacia citrinoviridis* tall sparse shrubland over *Triodia epactia* hummock grassland on flood plains
  - Asy.EcrTe – *Acacia synchronicia* mid open shrubland over *Triodia epactia* open hummock grassland (with intermittent clay pans with ephemeral open forbland and open tussock Grassland) on broad flood plains with claypans
  - Ax.Te – *Acacia xiphophylla* tall open shrubland over *a. synchronicia* mid sparse shrubland over a mixed low open shrubland / forbland over *Triodia epactia* sparse hummock grassland on broad flood plains with claypans
  - AsyAsc.Te – *Eucalyptus victrix* and *Corymbia hamersleyana* low isolated trees over *acacia synchronicia* and *A. sclerosperma* subsp. *sclerosperma* tall sparse shrubland over a mixed low open shrubland / forbland over *Triodia epactia* sparse hummock grassland on river flood plains
  - Cc.Te – *Corymbia candida* subsp. *candida* low woodland to open forest over *Acacia synchronicia, A. ancistrocarpa* and *A. trachycarpa* tall open shrubland over a mixed low open shrubland / forbland over *Triodia epactia* open hummock grassland in minor creeklines and drainage lines
  - El.AtuGr – *Eucalyptus leucophloia* low open woodland over *Gossypium robinsonii* and *Acacia tumida* var. *pilbarensis* tall open shrubland over *Acacia arida* mid open shrubland over *Triodia wiseana*, (*Triodia pisoliticola*) open hummock grassland in rocky gully creeklines
  - EcEv.Mg – *Eucalyptus camaldulensis* subsp. *refulgens* and *E. victrix* mid closed forest over *Melaleuca glomerata, Gossypium robinsonii* and *Acacia trachycarpa* tall sparse shrubland over *Eulalia aurea*, and other mixed species grassland / forbland in major creeklines
  - Ev.Atu – *Eucalyptus victrix* mid woodland over *Acacia tumida* var. *pilbarensis* and *Gossypium robinsonii* tall open shrubland over a mixed sparse forbland in major creeklines
  - MaEc.Mg.Cv – *Melaleuca argentea* and *Eucalyptus camaldulensis* subsp. *refulgens* mid open forest over *Melaleuca glomerata* tall open shrubland over *Cyperus vaginatus* open sedgeland in major creeklines
- No known records of any Commonwealth or state-listed Threatened Ecological Communities (TEC) occur within the survey area, nor is any of the vegetation described and mapped for the survey area likely to represent a Commonwealth or state-listed TEC

- One record of the P1 Priority Ecological Community (PEC) *Subterranean invertebrate communities of mesas in the Robe Valley region* occurs within the survey area. The vegetation unit El.Aa.TwTp, defined and mapped for the mesa breakaways within the survey area, likely represents a new record of the P3 PEC *Triodia pisoliticola assemblages of mesas of the West Pilbara,* based on the presence of key species *Triodia pisoliticola* and *Acacia citrinoviridis,* proximity of known records of the PEC (<2.5 km away), and presence of defining habitat (mesa slopes and peaks).
- Nine of the vegetation units described and mapped for the survey area are considered to be of high conservation significance. Conservation significant vegetation accounts for 419 ha (36%) of the survey area:
  - Five are conservation significant due to the presence of PF. These vegetation units account for 272 ha (23%) of the survey area
  - Four are considered conservation significant as they represent groundwater dependent vegetation . These vegetation units account for 147 ha (13%) of the survey area.

1 INTRODUCTION

1.1 Project background

RPS AAP Consulting Pty Ltd (RPS) was commissioned by CZR Resources Limited to undertake a detailed flora and vegetation assessment for the Yarraloola Project incorporating portions of the Robe Mesa and Robe East Extension Iron Ore Deposits within exploration tenements E 08/1060-1 (636 hectares (ha)) and E 08/1686-1 (2,384 ha) (hereafter referred to as 'the survey area').

1.2 Project location

The Yarraloola project is located approximately 95 kilometres (km) east of Onslow and 30 km west of Pannawonica in the Pilbara region of Western Australia, within the Shire of Ashburton (Figure A).

1.3 Objectives

The objectives of this detailed flora and vegetation assessment were to:

- Identify and characterise the flora and vegetation within the survey area, via provision of a comprehensive flora inventory and vegetation unit and condition mapping.
- Identify the presence and extent of conservation significant flora and ecological communities that are currently listed under the state *Biodiversity Conservation Act 2016* (BC Act) and the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) within the survey area.
- Describe the flora and vegetation values present, or likely to be present within the survey area that may be directly or indirectly impacted by the implementation of the Yarraloola project, including an analysis of the significance of flora and vegetation in local, regional and state contexts.
- Map the location and extent of conservation significant flora and vegetation within the survey area.

1.4 Scope of works

This detailed flora and vegetation assessment included a:

- Two-phase detailed flora and vegetation survey
- Targeted Threatened flora (TF) and Priority flora (PF) survey of known or potentially suitable habitat for each of the target species within the survey area at the appropriate time (the documented peak flowering time).

This report documents the methods and outcomes of the desktop study and detailed flora and vegetation survey undertaken between June and September 2021.

1.4.1 Detailed flora and vegetation survey

The detailed survey was undertaken over two phases:

- Phase 1 was carried out over five days (21 to 25 June 2021)
- Phase 2 was carried out over 12 days (27 August to 7 September 2021).

The detailed survey involved the sampling of the full range of vegetation communities and flora within the survey area. A total of fifty 50 metre (m) × 50 m (or equivalent) floristic quadrats and four relevés were sampled. The locations of the quadrats and relevés are shown in Figure B.

1.4.2 Targeted conservation significant flora survey

A targeted survey was undertaken concurrently with the Phase 2 detailed survey and involved searches of all potentially suitable habitats for target species within the survey area. Significant flora taxa identified as having a moderate or higher likelihood of occurring within the survey area (based on proximity of known records and / or presence of suitable habitat) were the focus of the targeted searches. The targeted searches were undertaken during the documented flowering time of the target species.

1.5 Guiding principles and legislative framework

Commonwealth and state legislation pertaining to the conservation of native flora and vegetation include the EPBC Act, BC Act and *Environment Protection Act 1986* (EP Act).

The EP Act is the primary legislation that governs environmental impact assessment and protection in Western Australia. The aim of the EP Act is "to provide for an EPA, for the prevention, control and abatement of pollution and environmental harm, for the conservation, preservation, protection, enhancement and management of the environment and for matters incidental to or connected with foregoing".

The EP Act states that the following principles, applicable to native flora and vegetation should be adhered to in order to protect the environment of Western Australia:

1. The precautionary principle – where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.
2. The principle of intergenerational equity – the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations.
3. The principle of the conservation of biological diversity and ecological integrity – conservation of biological diversity and ecological integrity should be a fundamental consideration.

1.5.1 Flora of conservation significance defined in the legislative framework

Within Western Australia, TF are listed if they are considered to be in danger of extinction, rare or otherwise in need of special protection. These taxa are legally protected under the BC Act. The removal of these taxa or impact to their surroundings is not permitted without prior Ministerial approval.

The Department of Biodiversity Conservation and Attractions (DBCA) maintains a list of PF species, which may be rare or threatened but for which there are either insufficient survey data to determine accurately their status, or which are rare but not currently considered to be threatened. A PF taxon is assigned to one of five priority categories. TF and PF categories are defined in Appendix A, Table A-1.

Many taxa listed as TF under the BC Act have additional protection as they are also listed as TF under one of six threat categories (Extinct, Extinct in the wild, Critically Endangered, Endangered, Vulnerable or Conservation Dependent) under the EPBC Act.

TF taxa are defined as Matters of National Environmental Significance (MNES) under the EPBC Act and penalties apply for any damage to individuals, populations or habitats of these flora.

The EPBC Act conservation category codes are defined in Appendix A, Table A-2.

1.5.2 Vegetation of conservation significance

Under the BC Act and the EP Act, Threatened Ecological Communities (TECs), classified by DBCA in one of the TEC categories (Appendix A, Table A-3) have limited protection. Other ecological communities are classified by DBCA in the category of Priority Ecological Communities (PECs) (Appendix A, Table A-4) pending further survey and/or definition.

A subset of the DBCA-listed TECs are listed and protected as MNES under the EPBC Act. The EPBC Act threat categories for TECs are defined in Appendix A, Table A-5.

2 METHODS

2.1 Desktop assessment

As a component of the detailed flora and vegetation assessment, RPS undertook a desktop review prior to the field survey work to make the best possible use of existing data from the area and to identify specific flora and vegetation values which may occur in, or proximate to the survey area. This involved a review of:

- High resolution aerial imagery
- Available literature including previous flora and vegetation survey reports and spatial datasets
- Search results of Commonwealth Government databases for TF and TECs protected under the EPBC Act
- DBCA databases and mapping for TF and PF.

2.1.1 Literature review

The following regional land surveys, flora and vegetation survey reports and mapping datasets relating to the survey area and environs were reviewed to provide a regional context in which to assess flora and vegetation values:

- Introduction to the Pilbara Biodiversity Survey, 2002–2007 (McKenzie et al. 2009)
- A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions in 2002. Pilbara 3 (PIL3) – Hamersley subregion) (Kendrick 2001)
- Interim Biogeographical Regionalisation of Australia (IBRA) biological subregions within Australia (Environment Australia 2000)
- An Inventory and Condition Survey of the Pilbara region, Western Australia. Technical Bulletin No. 92. (van Vreeswyk et al. 2004)
- Mesa J Tail Track Extension Vegetation, Flora and Fauna Survey (Astron Environmental Services 2011)
- Bungaroo Iron Ore Mine and Infrastructure Project Level 2 Vegetation and Flora Assessment (Astron Environmental Services 2016a)
- Middle Robe and East Deepdale Level 2 Vegetation and Flora Assessment (Astron Environmental Services 2016b)
- Mesa J Extension Vegetation, Flora and Fauna Assessment (Biota Environmental Sciences 2003)
- A Vegetation and Flora Survey of the Proposed Mesa A Transport Corridor, Warramboo Deposit and Yarraloola Borefield (Biota Environmental Sciences 2006a)
- A Vegetation and Seasonal Flora Survey of the Bungaroo Trial Pit and Transport Corridor to Mesa J, near Pannawonica and Sampling of the Broader Bungaroo Valley (Biota Environmental Sciences 2007)
- Baseline Flora and Vegetation Assessment of Robe Valley Mesas - Mesas B, C, D, E, F, H and I (Biota Environmental Sciences 2011)
- Pre-European Vegetation Mapping (Beard 1979)
- Surface geology mapping (DMIRS 2020).

2.1.2 State and Commonwealth Government database searches

Database searches were conducted to determine a list of conservation significant flora and ecological communities (i.e., those protected under the BC Act and / or the EPBC Act or considered Priority species / communities by the DBCA) that may occur within the survey area. The databases searched and the corresponding search areas are provided in Table 1.

Table 1: Flora and ecological communities databases searched and corresponding search areas

Database name	Governing organisation	Search area defined
NatureMap database	DBCA	Circle search within a 40 km radius of the survey area
• Western Australian DBCA Threatened and Priority Flora database • Western Australian Herbarium (WAH) Specimen database	DBCA	Survey area plus 100 km buffer
Western Australian DBCA TEC/PEC database	DBCA	Survey area plus 100 km buffer
Protected Matters database for MNES	Department of Agriculture, Water and the Environment (DAWE)	Circle search within a 50 km of the survey area

2.2 Field surveys

The field surveys were coordinated by RPS' Managing Botanist Carrie Gill and conducted by Carrie and consultant botanists Brian Morgan and Kelli McCreery. All field personnel hold current Biodiversity Conservation Regulations 2018; Flora Taking (Biological Assessment) Licences (Table 2).

Table 2: Botanical team personnel

Personnel	Title	Role	Survey	DBCA flora licences
Carrie Gill	Managing Botanist (RPS)	Field survey coordination and HSE management	June 2021 (Phase 1) Aug-Sept 2021 (Phase 2)	• Flora Taking - Biological Assessment Licence: FB62000151 (valid Oct 2019–Oct 2022) • Authorisation to Take or Disturb Threatened Species licence TFL 71-1920 (valid Sep 2019–Nov 2022)
		Field survey	June 2021 (Phase 1) Aug-Sept 2021 (Phase 2)	
Brian Morgan	Consultant Botanist	Field survey	June 2021 (Phase 1) Aug-Sept 2021 (Phase 2)	• Flora Taking - Biological Assessment Licence: FB62000075 (valid Apr 2019–Mar 2022)
Kelli McCreery	Consultant Botanist	Field survey	June 2021 (Phase 1) Aug-Sept 2021 (Phase 2)	• Flora Taking - Biological Assessment Licence: FB62000185b (Nov 2019–Feb 2022) • Authorisation to Take Threatened Flora TFL 27-1920 (valid Aug 2019–Aug 2022)

2.2.1 Detailed flora and vegetation survey

The detailed (plot-based) flora survey was undertaken in accordance with *Technical Guidance: Flora and Vegetation Surveys for Environmental Impact Assessment* (Environmental Protection Authority (EPA) 2016).

The field survey aimed to sample the full range of flora and vegetation within the survey area by strategically locating the floristic sites to cover the full toposequence of floristic communities present, from the mesa top and slopes, to the stony foot slopes, low basalt hills, flood plains and drainage lines.

A total of fifty 50 m × 50 m quadrats (or equivalent) were established and sampled in intact mature vegetation in areas of best condition (i.e., an effort was made to avoid areas obviously disturbed by weeds, recent fire, vehicle tracks or grazing by livestock. Floristic sites were also positioned to avoid the transition zones between floristic community types and environmental gradients, such as changes in substrate type, geology, aspect or hydrology.

The detailed survey involved:

- A targeted search for TF and PF as determined by the database search results, and the likelihood of any tecs or pecs occurring within the survey area
- Comprehensive quadrat-based flora recording and collection. Bounded 50 m × 50 m quadrats were established and sampled in intact, mature vegetation in areas of best condition to provide data for the floristic classification of the vegetation of the survey area
- Collection of information at each quadrat included:

  - Site code
  - Location (GDA94 GPS coordinates)
  - Size, shape and orientation of quadrat
  - Photograph/s from north-west corner
  - Landform and soil description
  - Dominant growth form, height, cover and species for the three traditional strata (upper, mid and ground)
  - Any other location information that might be useful in vegetation classification including slope, aspect, litter, fire history, vegetation/landform/soil correlations
  - Assessment of vegetation and description of disturbances
  - A comprehensive species list (annuals and perennials), including weeds
- Opportunistic collections were also recorded to verify that the remnant vegetation has been well characterised and important values identified
- Compilation of a comprehensive vascular flora inventory of all flora species recorded within the survey area including weed species
- Vegetation condition mapping using the recommended EPA (2016) scale adapted from Trudgen (1988)
- Vegetation unit description and mapping using the National Vegetation Information System (NVIS) (ESCAVI 2003). Vegetation types were described to Association (Level V)
- Identification and mapping of areas of ecological importance (e.g.TF and PF, TECs, PECs and groundwater dependant vegetation) within the survey area.

2.2.2 Targeted Threatened and Priority flora surveys

Targeted TF and PF searches were conducted as part of the Phase 2 detailed survey and aimed to determine the location and abundance of all significant flora populations or vegetation in the survey area and to place any impacts into context locally and regionally.

All potentially suitable habitats were systematically searched for target species and communities. Significant flora taxa identified as occurring within or having a moderate or high likelihood of occurring within the survey area (based on proximity of known records and / or presence of suitable habitat) were the target of the searches.

2.3 Data analysis

2.3.1 Taxonomic determinations

Flora specimens were either identified in the field, or collected and identified using the keys, publications and databases of the WAH. Plant specimens were identified at the WAH by specialist taxonomist Frank Obbens. Nomenclature was aligned with the current names in FloraBase (WAH 2021).

2.3.2 Vegetation mapping

The vegetation mapping was conducted using a combination of aerial photo-interpretation, regional vegetation mapping, on-ground confirmation and vegetation structure data.

Vegetation types were described to Association (Level V) in accordance with the NVIS (ESCAVI 2003) (Appendix A, Table A-6 and Table A-7).

Vegetation condition mapping was undertaken using the recommended EPA (2016) scale for the Eremaean region of Western Australia; that of Trudgen (1988) (Appendix A, Table A-8).

2.3.3 Multivariate analysis of floristic data

All multivariate data analyses followed the procedures outlined in Clarke and Gorley (2015) and were carried out using the appropriate modules of the Primer statistical software package (Plymouth Marine Laboratory – Version 7). Data analyses were conducted using PRIMER v7 modules, including Classification, Similarity Profile Analysis (SIMPROF) (Clarke and Gorley 2015). The analyses aimed to compare the floristic composition of the quadrats sampled for the survey area to identify groups of floristically similar sites to assist in defining the different floristic communities present.

2.3.3.1 Classification and similarity profile analysis (SIMPROF)

Floristic quadrat data (presence / absence and percentage cover) derived from the current survey, in the form of a 'species by site' table, were initially analysed to classify the different floristic communities within the survey area. A resemblance (dissimilarity) matrix of the presence/absence data for the dataset was constructed using the Bray-Curtis Similarity Coefficient. A Hierarchical Cluster Analysis was carried out on this matrix using the group average linkage method.

The purpose of classification is to produce a dendrogram that allows patterns (clusters) in the data to be visualised. Dendrograms illustrate the "relatedness" of groups of samples; in this case, based on floristics. A Bray-Curtis similarity matrix of data from the current survey was subjected to hierarchical (group average) assessment to produce a single dendrogram. Further, a "similarity profile" SIMPROF permutation test was carried out at each node of this dendrogram to look for statistically significant clusters in the set of samples (indicated by the black lines on the dendrogram).

2.4 Limitations

2.4.1 Field survey

Practitioners who conduct ecological surveys for environmental impact assessment in Western Australia are obliged to report on the limitations and constraints in such studies. Some potential limitations / constraints on surveys may adversely impact on the scientific rigour, completeness or the validity of the survey results. EPA (2016) identifies standard limitations which can limit and constrain the validity of surveys. These limitations / constraints and their relevance to this assessment are presented in Table 3.

Table 3: Survey limitations

Limitation	Relevance	Details
Availability of contextual information at a regional and local scale	No	The literature review determined that numerous detailed flora and vegetation assessments have been undertaken in the vicinity of the survey area of other Robe Valley mesas (Mesas A, B, C, D, E, F, H and I) by Astron Environmental Services (2011; 2016a; 2016b), and Biota Environmental Sciences (2003; 2007; 2011).
Competency and experience of the field team	No	The botanical practitioners, Kelli McCreery, Brian Morgan and Carrie Gill, are suitably qualified and experienced, all with over 15 years of professional experience conducting botanical surveys for Environmental Impact Assessment in Western Australia.
Proportion of flora recorded and / or collected, and problems with taxonomic determinations	No	Flora taxa recorded were either identified in the field or collected and identified using the keys and resources of the WAH by specialist taxonomist Frank Obbens. A total of 1,542 vascular flora taxa are known from the Hamersley (PIL3) subregion, of which 1,443 are native (WAH 2021). A total of 354 taxa were recorded for the current detailed survey which represents 23% of the total number recorded for the whole subregion. The species accumulation curve indicates that the survey effort was very good.
The effort and extent of the survey	No	The area was comprehensively surveyed over a total of 54 person survey days for the two-phase detailed survey. A total of 50 floristic quadrats were installed and sampled across the 1,165 ha survey area.
Access restrictions within the survey area	No	All of the survey area was fully accessible to the field survey personnel for the duration of the surveys.

Limitation	Relevance	Details
Survey timing, rainfall, season of survey	No	The surveys were undertaken in winter, after autumn / winter rain which is the optimal time for ecological surveys in the Pilbara bioregion. Due to above average rain in the months prior to the surveys the survey conditions were excellent.
Disturbances that may have affected the results of survey such as fire, vehicle tracks and weeds	Minor	Some areas of the survey area have been affected by fire in recent years, which has impacted vegetation composition and structure; other disturbances include grazing by livestock and weed infestation. Most of the survey area (> 85%) was in Very Good or Excellent condition with little or no infestation from weeds or disturbance from other factors, however, the creek lines and drainage lines and some low-lying parts of the survey area were in poorer condition due to heavy weed infestation *by *Cenchrus ciliaris* (buffel grass).

3 EXISTING ENVIRONMENT

3.1 Interim Biogeographic Regionalisation of Australia

The Interim Biogeographical Regionalisation of Australia (IBRA) currently recognises 89 bioregions and 419 biological subregions within Australia. The survey area lies within the Hamersley (PIL3) subregion of the Pilbara region (Department of Energy and the Environment 2016).

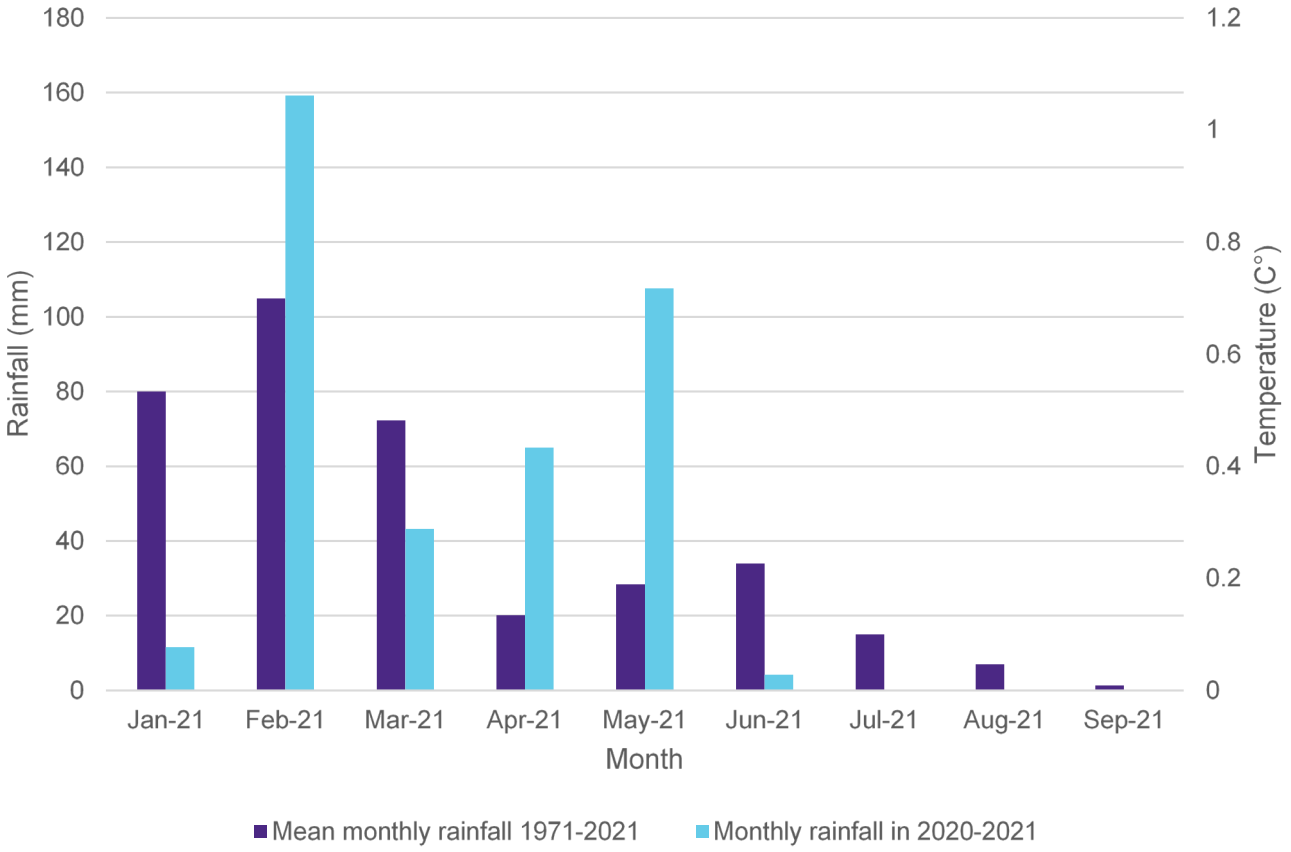
The Hamersley (PIL3) subregion is 6,215,092 ha in size and is the southern section of the Pilbara Craton. It is described by Kendrick (2001) as “a mountainous area of Proterozoic sedimentary ranges and plateaux, dissected by gorges (basalt, shale and dolerite). Mulga low woodland over bunch grasses on fine textured soils in valley floors, and *Eucalyptus leucophloia* over *Triodia brizoides* on skeletal soils of the ranges. Drainage into either the Fortescue (to the north), the Ashburton to the south, or the Robe to the west”.

3.2 Climate and rainfall

The climate of the Pilbara region is arid tropical with summer rain, with an average of 300 millimetres (mm) rainfall annually, usually received in summer cyclonic or thunderstorm events, however winter rain is common (Kendrick 2001; Beard 1990).

Between February and May 2021, the four months immediately preceding the survey in June 2021, a total of 375 mm of rain was received which is approximately 66% more than the long-term average total for the same period.

Historical rainfall data collected at the Pannawonica weather station (005069) located approximately 34 km east-northeast of the survey area is presented in Graph 1 (Bureau of Meteorology (BoM) 2021).



(Source: BoM 2021)

Graph 1: Mean monthly rainfall (mm) for Pannawonica weather station (005069) 1971–2021, and rainfall data 2020–2021 (BoM 2021)

3.3 Land systems

Land system mapping of the rangelands by the Department of Agriculture and Food, Western Australia and Department of Land and Surveys defines a map unit or land system as “an area or group of areas throughout which there is a recurring pattern of topography, soils and vegetation” (Pringle et al. 1994). The survey area intersects four land systems (van Vreeswyk et al. 2004). The land systems are described in Table 4 and shown in Figure C.

Table 4: Land systems represented within the survey area

Land system	Land type	Description
ROBE	Mesas, breakaways and stony plains with spinifex grasslands	Low plateaux, mesas and buttes of limonites supporting soft spinifex (and occasionally hard spinifex) grasslands
BOOLGEEDA	Stony plains with spinifex grasslands	Stony lower slopes and plains below hill systems supporting hard and soft spinifex grasslands or mulga shrublands
SHERLOCK	Alluvial plains with acacia shrublands	Stony alluvial plains supporting snakewood shrublands with patchy tussock grasses and spinifex grasslands
RIVER	River plains with grassy woodlands and tussock grasslands	Active flood plains, major rivers and banks supporting grassy eucalypt woodlands, tussock grasslands and soft spinifex grasslands

(Adapted from van Vreeswyk et al. 2004)

3.4 Geology and landforms

The geology of the Pilbara region comprises a basement of Archaen granite and volcanics overlain by massive deposits of Proterozoic sediments (Beard 1990) expressed as mountainous basalt, shale and dolerite ranges and plateaux dissected by gorges (Kendrick 2001). The Hamersley Basin, in which the survey area lies, overlies the older Archaean Pilbara Craton and comprises mafic and felsic volcanics, shale, siltstone, sandstone and conglomerate, as well as dolomite and banded iron formation (van Vreeswyk et al. 2004).

Interrogation of the 1:1,000,000 Western Australian Surface Geology spatial data (DMIRS 2020) determined there to be three geological units represented within the survey area. The geological units are described in Table 5 and shown in Figure D.

Table 5: Western Australian surface geology mapped for the survey area

Rock unit	Name	Description
Czlr	Robe Pisolite	Pisolitic, oolitic, and massive limonite, goethite, and hematite deposits containing fossil wood fragments; iron ore
Qrc	Colluvium 38491	Colluvium, sheetwash, talus; gravel piedmonts and aprons over and around bedrock; clay-silt-sand with sheet and nodular kankar; alluvial and aeolian sand-silt-gravel in depressions and broad valleys in Canning Basin; local calcrete, reworked laterite
Qa	Alluvium 38485	Channel and flood plain alluvium; gravel, sand, silt, clay, locally calcreted

3.5 Conservation reserves

The Pilbara region has 7.75% of its surface under some form of conservation tenure. At a subregional level, the Hamersley (PIL3) has 14.10% in conservation reserve (Kendrick 2001). The subregion contains almost all of Karijini National Park and the eastern half of Cane River Conservation Park. The conservation category and purpose of these reserves is detailed in Table 6. The location of these reserves within the subregion is shown in Figure E.

Table 6: Conservation reserves within the Hamersley (PIL3) subregion

Class	Name	Category	Purpose
A	Karijini National Park	National Park	Conservation of fauna and flora, recreation
-	Cane River Conservation Park	Conservation Park	Conservation of fauna and flora, recreation

3.6 Regional vegetation mapping

The survey area lies within the Fortescue Botanical District of the Eremaean Botanical Province (Beard 1990). The Fortescue Botanical District covers over 178,017 km^2 and is typified by tree and shrub steppe communities (hummock grassland) with *Eucalyptus* spp., *Acacia* shrubs, *Triodia epactia* and *T. wiseana* with Mulga in the valleys and short-grass plains on alluvia (Beard 1990; van Vreeswyk et al. 2004). In the rugged Hamersley (PIL3) subregion tree steppe with snappy gum (*Eucalyptus leucophloia*) is predominant with Mulga low woodland in the valleys. In the southwest corner of the subregion there is sparse shrub steppe with snakewood on drainage lines (van Vreeswyk et al. 2004).

Beard's 1:1,000,000 scale vegetation mapping of Western Australia (Beard 1979), defines the vegetation within the survey area as belonging to two broad vegetation associations (Table 7). Regional vegetation for the survey area is presented in Figure F.

Table 7: Beard (1979) vegetation associations represented within the survey area

System	Vegetation association	Structural description	Description
STUART HILLS	583	Sparse shrub-steppe	Hummock grassland with sparse shrubs *Triodia* spp. *Acacia* spp.
	29	Low woodland, open low woodland or sparse woodland	Mulga *Acacia aneura* and associated species

The remnant extent and reservation status of these vegetation associations within Western Australia and the Hamersley (PIL3) subregion is presented in Table 8.

The EPA's objective is to retain at least 30% of the pre-clearing extent of each ecological community. Both of these vegetation associations have >99% of their pre-European extent remaining in Western Australia and within the Hamersley (PIL3) subregion.

Table 8: Pre-European extent, current extent and reservation status of vegetation associations within the Western Australia and the Hamersley (PIL3) subregion

Vegetation association	Area	Pre-European extent (ha)	Present extent (ha) remaining	% of present extent remaining	% of present extent in secure tenure
583	Western Australia	243,111.71	243,111.71	100.00	35.25
	PIL3 Subregion	240,724.25	240,724.25	100.00	35.50
29	Western Australia	7,903,991.45	7,898,973.24	99.94	0.29
	PIL3 Subregion	172,082.57	170,747.58	99.22	11.21

(Government of Western Australia 2019)

3.7 Flora

A total of 1,542 vascular flora taxa are known from the Hamersley (PIL3) subregion, of which 1,443 are native (WAH 2021).

4 RESULTS

4.1 Desktop survey results

4.1.1 Threatened and Priority Flora database search results

Searches of the DBCA Threatened and Priority Flora database and the WAH specimen database were undertaken within a 100 km radius of the survey area.

A total of 49 species of conservation significance were found to occur within the search radius comprising seven Priority 1, seven Priority 2, 28 Priority 3 and seven Priority 4 flora taxa.

The list of significant species were ranked in terms of their 'likelihood of occurrence' within the survey area, based on proximity of known records and the presence of preferred or suitable habitat (Appendix B).

Of the 49 taxa retrieved from the database searches three species, *Goodenia nuda* (P4), *Triodia pisoliticola* (P3) and *Rhynchosia bungarensis* (P4), were deemed to have a 'high' likelihood of occurrence, 17 a 'moderate' likelihood, 11 a 'low' likelihood, and the remaining 18 'negligible' likelihood of occurring within the survey area. Refer to Appendix B for likelihood rank definitions and the rationale behind the assessment of likelihood for each species.

Conservation significant species records in the vicinity of the survey area derived from the database searches are presented in Figure G.

4.1.2 Threatened and Priority ecological community database search results

A search of DBCA's TEC/PEC database for known TEC and PEC records within a 100 km radius of the survey area returned numerous records of six Priority 1 (P1), two Priority 3 (P3) and one Priority 4 (P4) ecological communities (Table 9).

There are no known TECs within the search area. One record of the P1 PEC *Subterranean invertebrate communities of mesas in the Robe Valley region* occurs within the survey area. This PEC extends across a series of isolated mesas in the Robe Valley, which includes the mesa within the survey area. The mesas are remnants of old valley infill deposits of the palaeo Robe River. The troglobitic faunal communities occur in an extremely specialised habitat and appear to require the particular structure and hydrogeology associated with mesas to provide a suitable humid habitat. Short range endemism is common in the fauna. The habitat is the humidified pisolitic strata. Threats include removal of substrate for mining and associated hydrological changes (DBCA 2020).

There are several records of the P3 PEC *Triodia pisoliticola assemblages of mesas of the West Pilbara* within 15 km of the survey area and one of these is less than 2.5 km from the survey area boundary. This community is typically restricted to mesas where the plant assemblages are dominated by or contain *Triodia pisoliticola* in combination with species that are considered 'out-of-context' from their normal habitat. The community is a combination of *Triodia pisoliticola* with *Acacia pruinocarpa, A. citrinoviridis* on slopes or peaks of mesas. These two *Acacia* spp. are generally found associated with Pilbara creeklines, and their occurrence is probably indicative of the genesis of the mesa surfaces in wetlands, then erosion of the landscape and 'inversion of the landscape' such that the mesa slopes and peaks that were previously low in the landscape become high points. Threats include clearing for mining and associated infrastructure (DBCA 2020).

The database search results for conservation significant ecological community records are shown in Figure H.

Table 9: DBCA ecological communities database search results

Ecological community	BC Act status	Number of records	Buffer (m)
Stygofaunal Community of the Bungaroo aquifer	Priority 1	1	500
Subterranean invertebrate communities of mesas in the Robe Valley region	Priority 1	8	500
Subterranean invertebrate community of pisolitic hills in the Pilbara	Priority 1	2	500
Sand Sheet vegetation (Robe Valley)	Priority 1	2	500
Tanpool Land System	Priority 1	8	500
Four plant assemblages of the Wona Land System (previously Cracking clays of the Chichester and Mungaroona Range)	Priority 1	17	500
Kumina Land System	Priority 3	5	500
Triodia pisoliticola (previously *Triodia* sp. Robe River) assemblages of mesas of the West Pilbara	Priority 3	53	500
Invertebrate assemblages (Nyeetberry Pool Type)	Priority 4	1	500

* Conservation codes defined in Appendix A (Table A-4)

4.2 Field survey results

4.2.1 Flora

4.2.1.1 Flora statistics

A total of 354 vascular flora taxa were recorded by the current survey of which 343 (96.9%) were native species and 11 (3.1%) were naturalised alien (weed) species. The list of taxa recorded for the survey area is presented in Appendix C. Species recorded by floristic site (quadrat) are presented in Appendix D, and detailed floristic quadrat and relevé data are presented in Appendix E.

The taxa recorded represent 52 families and 144 genera. The families represented by the greatest number of taxa are presented in Table 10. The genera represented by the greatest number of taxa are presented in Table 11.

Table 10: Dominant families within the survey area

Family	Common name	No. of taxa
FABACEAE	Acacias and peas	58
MALVACEAE	Mallows	50
POACEAE	Grasses	48
ASTERACEAE	Daisies	24
AMARANTHACEAE	Amaranth	23
CHENOPODIACEAE	Goosefoots	14
CONVOLVULACEAE	Morning glories	14
CYPERACEAE	Sedges	14

Table 11: Dominant genera within the survey area

Genus	No. of taxa
Acacia	21
Ptilotus	15
Abutilon	13
Sida	13
Hibiscus	10

Genus	No. of taxa
Eriachne	9
Tribulus	8
Senna	8
Cyperus	7
Indigofera	7
Tephrosia	7
Euphorbia	7
Dysphania	7

4.2.1.2 Field survey effort

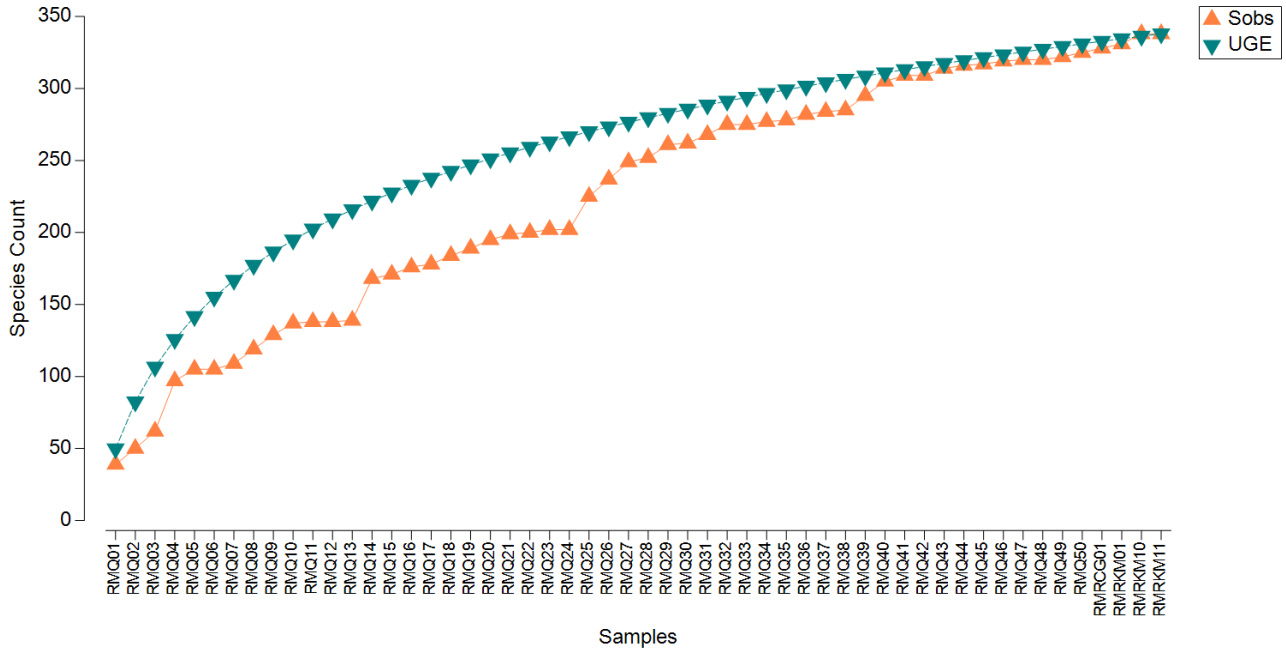
Species accumulation plots were generated for the survey site data using PRIMERv7 SPEC-ACCUM (Graph 2). This expressed the number of species recorded for the field survey as a function of effort (i.e., number of sites sampled).

Initially, the analysis was run on the dataset in the order that the sampling sites (quadrats) were sampled in the field (i.e., chronologically) using the 'Sobs' index. This generated a 'stepped' curve showing the actual cumulative number of taxa recorded as each subsequent floristic site was sampled.

A second analysis was undertaken using the 'UGE' index to generate a smooth curve which was derived from the means of repeated re-sampling of all pooled samples. This curve represents the 'statistical expectation' for the Sobs curve.

The curves demonstrate that a total of 338 taxa were recorded for the 50 quadrats and four relevés. The shape of the curve indicates that fewer new species were recorded with the sampling of each additional site and that the number of sites that would have to be sampled to reach the asymptote (theoretical maximum) would be prohibitively large.

It was concluded that the survey effort for the current field survey was very good. It should also be noted that an additional 16 taxa were recorded opportunistically bringing the actual total to 354.



Graph 2: Species accumulation curve (Sobs and UGE indices)

4.2.1.3 Threatened and Priority flora

No TF species listed under the BC Act or the EPBC Act were recorded within the survey area during the detailed flora and vegetation survey.

Three PF species were recorded within the survey area as follows:

- *Triodia pisoliticola* (P3)
- *Eragrostis crateriformis* (P3)
- *Goodenia nuda* (P4).

Descriptions of these species, and their location and abundance within the survey area is discussed in the following sections.

4.2.1.3.1 *Triodia pisoliticola* (P3)

Triodia pisoliticola is a non-resinous 'soft' spinifex grass growing to 1 m high with lax to sprawling pale green foliage. Flowers are yellow. The species occurs on the slopes and crests of ironstone hills and mesas, on red-brown sandy loams with ironstone pebbles, stones and outcropping rock (WAH 2021; Barrett and Trudgen 2018).

The species occurs in the Eremaean Botanical Province, in the Pilbara region (WAH 2021), in the western part of the region, with a range of about 200 km in the Robe River Valley and the headwaters of the Cane River. Most of the known records are on the edges and tops of mesas capped with Robe Pisolite (Barrett and Trudgen 2018).

A total of greater than 12,000 individuals were recorded at 412 locations within the survey area (Figure I and Plate 1) within with two vegetation units as follows:

- El.Aa.TwTp - *Eucalyptus leucophloia* low isolated clumps of trees over *Acacia arida* Isolated clumps of shrubs over *Triodia wiseana* and *T. pisoliticola* sparse hummock grassland on mesa breakaways and gorges
- El.AtuGr - *Eucalyptus leucophloia* low open woodland over *Gossypium robinsonii* and *Acacia tumida* var. *pilbarensis* tall open shrubland over *Acacia arida* mid open shrubland over *Triodia wiseana, (Triodia pisoliticola*) open hummock grassland in a gorge and rocky gully creekline on the north-western side of the mesa.

(Photo: C. Gill)

Plate 1: ***Triodia pisoliticola*** **on a mesa breakaway within the survey area**

4.2.1.3.2 Eragrostis crateriformis (P3)

Eragrostis crateriformis is an annual tussock-forming grass growing 0.17–0.42 m high. It flowers January to May or July. It occurs on clayey loam and clay on the banks of creeks and in depressions (WAH 2020) (Plate 2).

A total of around 2,800 individuals were recorded at 302 locations within the survey area (Figure I) within three vegetation units associated with the broad flood plains, claypans and drainage lines within the survey area as follows:

- Asy.EcrTe - *Acacia synchronicia* mid open shrubland over *Triodia epactia* open hummock grassland (with intermittent clay pans with ephemeral open forbland and open tussock grassland on broad flood plains
- Ax.Te - *Acacia xiphophylla* tall open shrubland over *A. synchronicia* mid sparse shrubland over a mixed low open shrubland / forbland over *Triodia epactia* sparse hummock grassland on broad flood plains
- Cc.Te - *Corymbia candida* subsp. *candida* low woodland to open forest over *Acacia synchronicia, A. ancistrocarpa* and *A. trachycarpa* tall open shrubland over a mixed low open shrubland / Forbland over *Triodia epactia* open hummock grassland in drainage lines and depressions.

(Photo: K. McCreery)

Plate 2: ***Eragrostis crateriformis*** **(P3) growing on the edge of a clay pan within the survey area**

4.2.1.3.3 *Goodenia nuda* – Priority 4

Goodenia nuda is an erect to ascending herb growing to 0.5 m high. Flowers are yellow and appear from April to August. The species occurs on hardpan plains and along drainage lines on red clayey loam. It occurs in the Eremaean Botanical Province, in the Pilbara region (WAH 2021).

A total of 117 individuals were recorded at 26 locations within the survey area (Figure I and Plate 3) within one vegetation unit as follows:

- Cc.Te - *Corymbia candida* subsp. *candida* low woodland to open forest over *Acacia synchronicia, A. ancistrocarpa* and *A. trachycarpa* tall open shrubland over a mixed low open shrubland / forbland over *Triodia epactia* open hummock grassland in drainage lines and clay depressions.

(Photo: K. McCreery)

Plate 3: ***Goodenia nuda*** **(P4) growing on a clay flat within the survey area**

4.2.1.4 Flora of other conservation significance

There are a number of other criteria (apart from the Commonwealth and Western Australian criteria of TF and PF) under which flora taxa may be considered to be of 'other' conservation significance. These taxa are considered significant in EPA (2016) under various categories that include:

- Locally endemic or association with a restricted habitat type (e.g. surface water or groundwater dependent ecosystems)
- New species or anomalous features that indicate a potential new species
- Representative of the range of a species (particularly, at the extremes of range recently discovered range extensions, or isolated outliers of the main range)
- Unusual species, including restricted subspecies, varieties or naturally occurring hybrids
- Relictual status, being representative of taxonomic groups that no longer occur widely in the broader landscape.

These taxa are not protected under Commonwealth or state legislation but are required to be assessed as part of flora and vegetation assessments.

A total of five flora taxa recorded within the survey area are conservation significant based on one or more of the criteria listed above (Table 12).

Table 12: Flora taxa of 'other' conservation significance within the survey area

Taxon	Collection no. of WAH submission	Other significance*	Detail	Floristic sites
Abutilon aff. fraseri	RMQ34-24 RMQ29-ADJ01	n	Steve Dillon at WAH could not provide a determination for this entity. Mericarps not ribbed. Specimen to be submitted to the WAH for further investigation.	RMQ26 RMQ34
Ammannia multiflora	RMQ32-11	ra	New locality for this taxon. To be submitted to the WAH.	RMQ27 RMQ32 RMRKM10
Bergia ?henshallii	RMQ40-34	ra	Represents a significant range extension to the south-west. To be submitted to the WAH.	RMQ40
Dysphania glomulifera subsp. *eremaea*	RMQ14-20	ra	New locality for this taxon. To be submitted to the WAH.	RMQ14 RMQ41
Marsilea costulifera	RMQ47-04 RMRKM10-07	ra	Represents a significant range extension to the northwest. To be submitted to the WAH.	RMQ39 RMQ45 RMQ47 RMRKM10

* 'Other' significance criteria

en - locally endemic or association with a restricted habitat type (e.g. surface water or groundwater dependent ecosystems)

n - new species or anomalous features that indicate a potential new species

ra - representative of the range of a species (particularly, at the extremes of range recently discovered range extensions, or isolated outliers of the main range)

un - unusual species, including restricted subspecies, varieties or naturally occurring hybrids

re - relictual status, being representative of taxonomic groups that no longer occur widely in the broader landscape.

4.2.1.5 Introduced flora (weeds)

Eleven naturalised alien (weed) species were recorded for the survey area, representing 3.1% of the total flora taxa recorded. **Euphorbia hirta* (asthma plant) was the most wide-spread weed within the survey area and was recorded in 19 of the 50 floristic quadrats. Weed species recorded within the survey area in order of abundance are listed in Table 13.

Table 13: Weed species recorded within the survey area

Family	Taxon	Common name	No. of sites	% of sites
EUPHORBIACEAE	**Euphorbia hirta*	Asthma plant	19	34.50
POACEAE	**Cenchrus ciliaris*	Buffel grass	14	25.50
POACEAE	**Cenchrus setiger*	Birdwood grass	13	23.60
ASTERACEAE	**Pseudognaphalium luteoalbum*	Jersey cudweed	7	12.70
POACEAE	**Echinochloa colona*	Awnless barnyard grass	3	5.50
POACEAE	**Cynodon dactylon*	Couch	1	1.80
SOLANACEAE	**Datura leichhardtii subsp. leichhardtii*	Native thornapple	1	1.80
POACEAE	**Setaria verticillata*	Whorled pigeon grass	1	1.80
MALVACEAE	**Malvastrum americanum*	Spiked malvastrum	1	1.80
AMARANTHACEAE	**Aerva javanica*	Kapok	1	1.80
PASSIFLORACEAE	**Passiflora foetida var. hispida*	Stinking passion flower	1	1.80

4.2.1.5.1 Declared pests and Weeds of National Significance

The Western Australian Organism List (WAOL) database was searched to determine the legal status of each weed recorded, and any control requirements that may apply under the *Biosecurity and Agriculture Management Act 2007* (BAM Act. None of the species were determined to be Declared Pests or are listed as Weeds of National Significance (Table 14).

Table 14: Weed species recorded within the survey area, their legal status and control requirements under the BAM Act

Name	Legal status	Control / keeping category
**Aerva javanica*	Permitted – s11[1]	Unassigned
**Cenchrus ciliaris*	Permitted – s11	Unassigned
**Cenchrus setiger*	Permitted – s11	Unassigned
**Cynodon dactylon*	Permitted – s11	Unassigned
**Datura leichhardtii subsp. leichhardtii*	Permitted – s11	Unassigned
**Echinochloa colona*	Permitted – s11	Unassigned
**Euphorbia hirta*	Permitted – s11	Unassigned
**Malvastrum americanum*	Permitted – s11	Unassigned
**Passiflora foetida* var. *hispida*	Permitted – s11	Unassigned
**Pseudognaphalium luteoalbum*	Permitted – s11	Unassigned
**Setaria verticillata*	Permitted – s11	Unassigned

4.2.2 Vegetation

4.2.2.1 Landforms

The detailed survey identified 11 broad landforms across the survey area as follows:

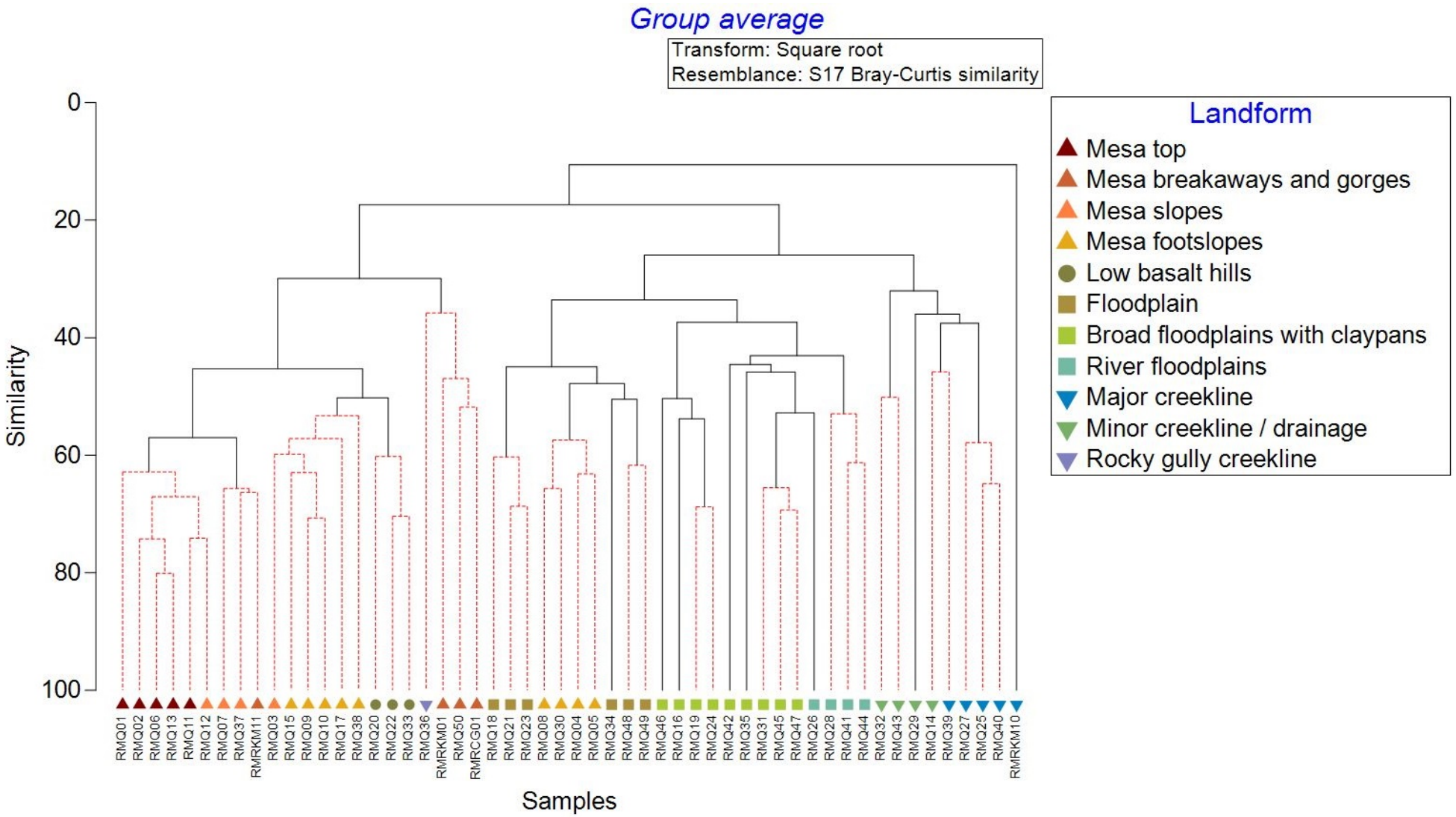
- Mesa tops
- Mesa breakaways and gorges
- Mesa slopes
- Mesa foot slopes
- Low basalt hills
- Flood plains
- Broad flood plains with claypans
- River flood plains
- Minor creek lines / drainage lines
- Rocky gully creek line
- Major creek lines.

4.2.2.2 Vegetation units

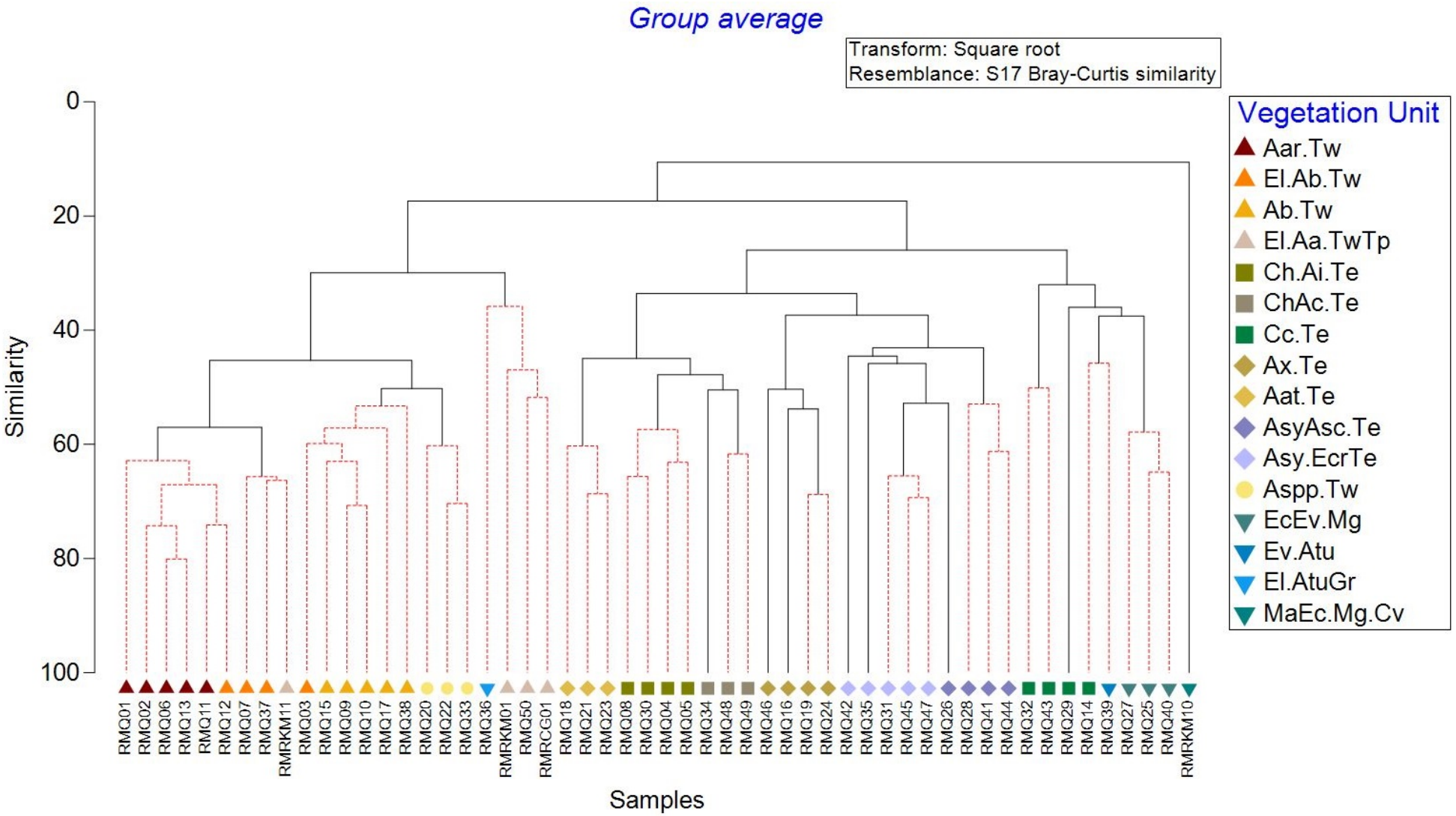
A total of 16 vegetation units were described and mapped for the survey which covered the full toposequence of vegetation types from mesa tops, slopes and foot slopes to plains and drainage and creek lines throughout the survey area. The vegetation units were defined from 50 quadrats and four relevés (floristic sites).

As stated in methods, vegetation community mapping was conducted using a combination of aerial photo-interpretation, on-ground confirmation, vegetation structure data, and multivariate analysis of the floristic site data. The hierarchical cluster analysis of the quadrat data determined there to be 22 statistically significant groups of sites based on their floristics (denoted by the black lines in the dendrograms). Graph 3 shows that floristic composition is generally well-correlated with the environmental factor of landform. Graph 4 shows how the sites group in relation to the vegetation units defined for the assessment.

[1] Permitted – s11: Permitted organisms must satisfy any applicable import requirements when imported. They may be subject to an import permit if they are potential carriers of high-risk organisms.



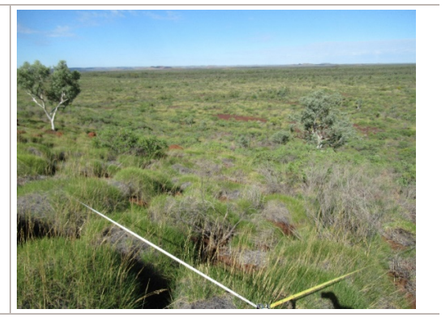
Graph 3: Classification dendrogram showing grouping of the floristics quadrats and relevés based on floristics and in relation to landform



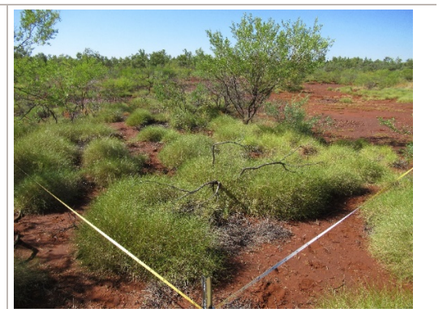
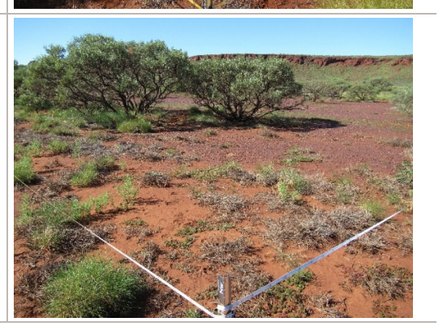
Graph 4: Classification dendrogram showing grouping of the quadrats and relevés based on floristics and in relation to vegetation unit

The vegetation unit mapping is presented in Figure J. A description of the vegetation units, their extent (ha) within the survey area, and the floristic sites representative of them is presented in Table 15.

Table 15: Vegetation units described and mapped for the survey area

Vegetation unit	Area (ha)	Percentage (%)	Quadrats/ relevés	
Mesa top				
Aar.Tw - *Acacia arida* Mid Sparse Shrubland over *Triodia wiseana* Hummock Grassland Associated species: *Abutilon* sp. Pilbara (W.R. Barker 2025), *Acacia arida, Acacia atkinsiana, Afrohybanthus aurantiacus, Arivela viscosa, Bonamia pilbarensis, Corchorus tectus, Corchorus tridens, Dodonaea coriacea, Dysphania kalpari, Dysphania rhadinostachya* subsp. *inflata, Eriachne pulchella subsp. dominii, Euphorbia vaccaria* var. *vaccaria, Goodenia microptera, Gossypium australe, Haloragis gossei, Hibiscus coatesii, Paspalidium clementii, Polycarpaea holtzei, Ptilotus astrolasius, Ptilotus auriculifolius, Ptilotus axillaris, Ptilotus calostachyus, Ptilotus clementii, Ptilotus exaltatus, Ptilotus fusiformis, Senna glutinosa* subsp. *glutinosa, Senna glutinosa* subsp. *pruinosa, Senna notabilis, Sida arsiniata, Sida* sp. Pilbara (A.A. Mitchell PRP 1543), *Solanum diversiflorum, Solanum horridum, Streptoglossa ? tenuiflora, Streptoglossa decurrens, Trachymene oleracea, Trachymene pilbarensis, Trigastrotheca molluginea, Triodia wiseana*	128.6	11.0	RMQ01 RMQ02 RMQ06 RMQ11 RMQ13	
Mesa breakaways and gorges				
El.Aa.TwTp - *Eucalyptus leucophloia* Low Isolated Clumps of Trees over *Acacia arida* Isolated Clumps of Shrubs over *Triodia wiseana and T. pisoliticola* Sparse Hummock Grassland Associated species: *Acacia arida, Acacia citrinoviridis, Amaranthus undulatus, Bulbostylis barbata, Corchorus tectus, Cymbopogon ambiguus, Cyperus cunninghamii* subsp. *cunninghamii, Dysphania rhadinostachya, Eriachne mucronata, Eriachne pulchella, Eucalyptus leucophloia, Ficus platypoda, Nicotiana benthamiana, Paspalidium clementii, Ptilotus astrolasius, Rhodanthe margarethae, Streptoglossa decurrens, Triodia pisoliticola, Triodia wiseana*	16.7	1.4	RMQ50 RMRCG01 RMRKM01 RMRKM11	
Mesa slopes				
El.Ab.Tw - *Eucalyptus leucophloia* Low Isolated Trees over *Acacia bivenosa* Mid Open Shrubland to Isolated Shrubs over *Triodia wiseana* Hummock Grassland Associated species: *Acacia arida, Acacia bivenosa, Arivela viscosa, Corchorus tectus, Corchorus tectus, Dysphania rhadinostachya* subsp. *inflata, Euphorbia vaccaria* var. *vaccaria, Paspalidium clementii, Polycarpaea holtzei, Ptilotus astrolasius, Ptilotus axillaris, Ptilotus exaltatus, Senna notabilis, Sida* sp. Pilbara (A.A. Mitchell PRP 1543), *Solanum diversiflorum, Solanum horridum, Triodia wiseana*	58.9	5.1	RMQ03 RMQ07 RMQ12 RMQ37	
Mesa footslopes				
Ch.Ai.Te - *Corymbia hamersleyana* Low Isolated Trees over *Acacia inaequilatera* Mid to Tall Sparse Shrubland over *Triodia epactia* Hummock Grassland Associated species: *Abutilon* sp. Pilbara (W.R. Barker 2025), *Acacia inaequilatera, Acacia synchronicia, Acacia tumida* var. *pilbarensis, Arivela viscosa, Bonamia linearis, Bonamia pannosa, Bulbostylis barbata, Corchorus sidoides* subsp. *sidoides, Corymbia hamersleyana, Cucumis variabilis, Cullen martinii, Dolichocarpa crouchiana, Dysphania rhadinostachya subsp. rhadinostachya, Eragrostis eriopoda, Eriachne pulchella, Euphorbia boophthona, Euphorbia vaccaria* var. *vaccaria, Goodenia forrestii, Goodenia microptera, Gossypium australe, Hakea lorea* subsp. *lorea, Heliotropium heteranthum, Hibiscus leptocladus, Hibiscus sturtii* var. *platychlamys, Indigofera boviperda* subsp. *boviperda, Indigofera colutea, Phyllanthus erwinii, Polycarpaea corymbosa, Portulaca oleracea, Pterocaulon sphacelatum, Ptilotus arthrolasius, Ptilotus astrolasius, Ptilotus auriculifolius, Ptilotus axillaris, Ptilotus exaltatus, Ptilotus fusiformis, Senna notabilis, Sida arsiniata, Sida echinocarpa, Solanum diversiflorum, Streptoglossa decurrens, Synaptantha tillaeacea* var. *tillaeacea, Tephrosia* sp. B Kimberley Flora (C.A. Gardner 7300), *Trianthema triquetra, Tribulus hirsutus, Tribulus macrocarpus, Tribulus platypterus, Trigastrotheca molluginea, Triodia epactia, Triumfetta clementii*	102	8.8	RMQ08 RMQ30 RMQ04 RMQ05	

Vegetation unit	Area (ha)	Percentage (%)	Quadrats/ relevés	
Ab.Tw - *Acacia bivenosa* and *Acacia* spp. Mid Open Shrubland over *Ptilotus* spp. and *Senna* spp. Low Sparse Shrubland over *Triodia wiseana* Hummock Grassland Associated species: *Abutilon* sp. Pilbara (W.R. Barker 2025), *Acacia ancistrocarpa, Acacia atkinsiana, Acacia bivenosa, Acacia inaequilatera, Acacia synchronicia, Amaranthus cuspidifolius, Amaranthus cuspidifolius, Arivela viscosa, Bonamia pannosa, Bulbostylis barbata, Corchorus tectus, Corymbia hamersleyana, Cucumis variabilis, Dactyloctenium radulans, Dolichocarpa crouchiana, Dysphania kalpari, Dysphania rhadinostachya* subsp. *rhadinostachya, Eragrostis dielsii, Euphorbia boophthona, Euphorbia vaccaria var. vaccaria, Evolvulus alsinoides* var. *decumbens, Evolvulus alsinoides* var. *villosicalyx, Goodenia forrestii, Goodenia microptera, Goodenia tenuiloba* sens. lat., *Gossypium australe, Haloragis gossei, Hibiscus brachychlaenus, Hibiscus sturtii var. campylochlamys, Indigofera monophylla, Ipomoea muelleri, Isotropis atropurpurea, Jasminum didymum subsp. lineare, Notoleptopus decaisnei, Paspalidium clementii, Phyllanthus erwinii, Pluchea ? tetranthera, Pluchea ? tetranthera, Polycarpaea corymbosa, Portulaca oleracea, Pterocaulon sphacelatum, Ptilotus astrolasius, Ptilotus auriculifolius, Ptilotus axillaris, Ptilotus calostachyus, Ptilotus exaltatus, Rhynchosia minima, Senna artemisioides* subsp. *oligophylla, Senna glutinosa* subsp. *pruinosa, Senna notabilis, Sida arsiniata, Solanum diversiflorum, Solanum horridum, Sporobolus australasicus, Streptoglossa bubakii, Streptoglossa decurrens, Stylobasium spathulatum, Trachymene oleracea, Tribulus hirsutus, Tribulus macrocarpus, Tribulus platypterus, Trichodesma zeylanicum* var. *zeylanicum, Trigastrotheca molluginea, Triodia wiseana, Triumfetta clementii, Waltheria indica*	138.9	11.9	RMQ09 RMQ10 RMQ15 RMQ17 RMQ38	
Low basalt hills				
Aspp.Tw - *Acacia* spp. Mid Isolated Shrubs over a mixed Low Open to Sparse Shrubland over *Triodia wiseana* Open Hummock Grassland Associated species: *Abutilon* sp. Pilbara (W.R. Barker 2025), *Acacia ancistrocarpa, Acacia atkinsiana, Acacia inaequilatera, Acacia synchronicia, Amaranthus cuspidifolius, Aristida holathera* var. *holathera, Arivela viscosa, Boerhavia coccinea, Bonamia pilbarensis, Bulbostylis barbata, Calandrinia ptychosperma, Corchorus tectus, Dolichocarpa crouchiana, Dysphania kalpari, Dysphania rhadinostachya, Dysphania rhadinostachya, Eragrostis crateriformis, Euphorbia boophthona, Euphorbia vaccaria* var. *vaccaria, Evolvulus alsinoides* var. *villosicalyx, Fimbristylis dichotoma, Gomphrena cunninghamii, Goodenia forrestii, Goodenia microptera, Gossypium australe, Heliotropium heteranthum, Hibiscus sturtii* var. *campylochlamys, Indigofera linifolia, Paspalidium clementii, Phyllanthus erwinii, Polycarpaea corymbosa, Polycarpaea holtzei, Portulaca oleracea, Pterocaulon sphacelatum, Ptilotus aervoides, Ptilotus astrolasius, Ptilotus astrolasius, Ptilotus auriculifolius, Ptilotus clementii, Ptilotus exaltatus, Senna artemisioides* subsp. *oligophylla, Senna glutinosa* subsp. *pruinosa, Senna notabilis, Sida arsiniata, Sida echinocarpa, Solanum diversiflorum, Sporobolus australasicus, Sporobolus australasicus, Streptoglossa bubakii, Synaptantha tillaeacea* var. *tillaeacea, Tephrosia* sp. NW Eremaean (S. van Leeuwen et al. PBS 0356), *Trianthema triquetra, Tribulus hirsutus, Trigastrotheca molluginea, Triodia wiseana, Triumfetta clementii, Vachellia farnesiana*	27.6	2.4	RMQ20 RMQ22 RMQ33	
Flood plains				
Aat.Te - *Acacia atkinsiana*, *A. ancistrocarpa* and *A. sclerosperma* subsp. *sclerosperma* Tall Shrubland to Sparse Shrubland over mixed species Low Sparse Shrubland over *Triodia epactia* Hummock Grassland Associated species: *Abutilon otocarpum, Abutilon* sp. Pilbara (W.R. Barker 2025), *Acacia ancistrocarpa, Acacia atkinsiana, Acacia inaequilatera, Acacia synchronicia, Arivela viscosa, Bonamia erecta, Bonamia pannosa, Bonamia pilbarensis, Codonocarpus cotinifolius, Corchorus tectus, Corchorus tectus, Dysphania kalpari, Dysphania rhadinostachya* subsp. *inflata, Eriachne helmsii, Euphorbia boophthona, Euphorbia boophthona, Euphorbia vaccaria* var. *vaccaria, Evolvulus alsinoides* var. *villosicalyx, Goodenia microptera, Gossypium australe, Grevillea wickhamii subsp. hispidula, Hibiscus sturtii* var. *campylochlamys, Hibiscus sturtii* var. *campylochlamys, Indigofera boviperda subsp. boviperda, Ipomoea muelleri, Notoleptopus decaisnei, Paraneurachne muelleri, Paspalidium clementii, Phyllanthus erwinii, Polycarpaea corymbosa, Ptilotus appendiculatus, Ptilotus astrolasius, Ptilotus axillaris, Ptilotus exaltatus, Ptilotus fusiformis, Senna notabilis, Sida arsiniata, Sida echinocarpa, Sida* sp. L (A.M. Ashby 4202), *Sida* sp. Pilbara (A.A. Mitchell PRP 1543), *Solanum diversiflorum, Tribulus astrocarpus, Tribulus macrocarpus, Triodia epactia, Triumfetta clementii, Waltheria indica*	271.3	23.3	RMQ18 RMQ21 RMQ23	
ChAc.Te - *Corymbia hamersleyana* Low Open Woodland over *Acacia citrinoviridis* Tall Sparse Shrubland over *Triodia epactia* Hummock Grassland Associated species: *Abutilon* aff. *fraseri, Abutilon cunninghamii, Abutilon lepidum, Abutilon otocarpum, Abutilon* sp. Pilbara (W.R. Barker 2025), *Acacia arida, Acacia atkinsiana, Acacia bivenosa, Acacia citrinoviridis, Acacia inaequilatera, Acacia ligulata, Acacia pyrifolia* var. *pyrifolia, Acacia trachycarpa, Acacia tumida* var. *pilbarensis, Afrohybanthus aurantiacus, Alternanthera nana, Aristida holathera* var. *holathera, Arivela viscosa, Boerhavia coccinea, Bonamia erecta, Bonamia pannosa, Bonamia pilbarensis, Bulbostylis barbata, Calandrinia ptychosperma, Cenchrus ciliaris, Cenchrus setiger, Corchorus sidoides subsp. sidoides, Corchorus sidoides* subsp. *sidoides, Corchorus tridens, Corymbia hamersleyana, Crotalaria medicaginea, Cucumis variabilis, Cymbopogon ambiguus, Digitaria ctenantha, Duperreya commixta, Dysphania melanocarpa forma melanocarpa, Dysphania rhadinostachya* subsp. *rhadinostachya, Eragrostis cumingii, Eremophila longifolia, Eriachne aristidea, Eriachne mucronata, Eriachne tenuiculmis, Eucalyptus leucophloia, Euphorbia boophthona, Euphorbia trigonosperma, Euphorbia vaccaria* var. *vaccaria, Evolvulus alsinoides* var. *decumbens, Evolvulus alsinoides* var. *villosicalyx, Goodenia microptera, Gossypium australe, Gossypium robinsonii, Grevillea pyramidalis, Grevillea wickhamii* subsp. *hispidula, Hakea lorea* subsp. *lorea, Hibiscus sturtii* var. *campylochlamys, Hibiscus sturtii* var. *platychlamys, Indigofera colutea, Ipomoea muelleri, Ipomoea polymorpha, Jasminum didymum* subsp. *lineare, Malvastrum americanum, Melhania oblongifolia, Nicotiana sp., Notoleptopus decaisnei, Paraneurachne muelleri, Paspalidium clementii, Paspalidium rarum, Perotis rara, Phyllanthus erwinii, Phyllanthus maderaspatensis, Polycarpaea corymbosa, Portulaca oleracea, Ptilotus appendiculatus, Ptilotus astrolasius, Ptilotus axillaris, Ptilotus exaltatus, Ptilotus fusiformis, Rhynchosia minima, Senna artemisioides* subsp. *oligophylla, Senna notabilis, Setaria dielsii, Sida arsiniata, Sida echinocarpa, Sida fibulifera, Sida* sp. spiciform panicles (E. Leyland s.n. 14/8/90), *Solanum cleistogamum, Solanum diversiflorum, Sporobolus australasicus, Streptoglossa decurrens, Striga curviflora, Stylobasium spathulatum, Themeda triandra, Trachymene oleracea, Trianthema pilosa, Trianthema triquetra, Tribulus hirsutus, Tribulus macrocarpus, Tribulus macrocarpus, Trichodesma zeylanicum* var. *zeylanicum, Trigastrotheca molluginea, Triodia epactia, Triodia pisoliticola, Triodia wiseana, Triumfetta clementii, Waltheria indica*	18.2	1.6	RMQ34 RMQ48 RMQ49	

Vegetation unit	Area (ha)	Percentage (%)	Quadrats/ relevés	
Broad flood plains with claypans				
Asy.EcrTe - *Acacia synchronicia* Mid Open Shrubland over *Triodia epactia* Open Hummock Grassland (with intermittent clay pans with ephemeral Open Forbland and Open Tussock Grassland) Associated species: *Abutilon lepidum, Acacia synchronicia, Alternanthera nana, Arivela viscosa, Boerhavia* sp., *Bulbostylis barbata, Bulbostylis turbinata, Calandrinia ptychosperma, Centipeda minima* subsp. *macrocephala, Corchorus sidoides* subsp. *sidoides, Corchorus tridens, Cynodon prostratus, Cyperus difformis, Cyperus iria, Dactyloctenium radulans, Dysphania rhadinostachya subsp. rhadinostachya, Eragrostis crateriformis, Eragrostis cumingii, Eragrostis dielsii, Euphorbia boophthona, Evolvulus alsinoides* var. *villosicalyx, Fimbristylis dichotoma, Fimbristylis elegans, Gossypium australe, Hibiscus sturtii* var. *campylochlamys, Ipomoea coptica, Marsilea hirsuta, Paspalidium rarum, Peplidium muelleri, Peplidium muelleri, Phyllanthus erwinii, Pluchea rubelliflora, Polycarpaea corymbosa, Portulaca oleracea, Pterocaulon sphacelatum, Ptilotus appendiculatus, Ptilotus astrolasius, Ptilotus axillaris, Ptilotus gomphrenoides, Salsola australis, Sclerolaena costata, Senna notabilis, Sida arsiniata, Sida echinocarpa, Sida* sp. L (A.M. Ashby 4202), *Solanum cleistogamum, Solanum diversiflorum, Streptoglossa decurrens, Synaptantha tillaeacea* var. *tillaeacea, Trianthema triquetra, Tribulus macrocarpus, Triodia epactia, Vachellia farnesiana*	142	12.2	RMQ31 RMQ35 RMQ42 RMQ45 RMQ47	
Ax.Te - *Acacia xiphophylla* Tall Open Shrubland over *A. synchronicia* Mid Sparse Shrubland over a mixed Low Open Shrubland / Forbland over Triodia epactia Sparse Hummock Grassland Associated species: *Abutilon lepidum, Acacia synchronicia, Acacia xiphophylla, Amaranthus cuspidifolius, Arivela viscosa, Cucumis variabilis, Cynodon prostratus, Dysphania rhadinostachya* subsp. *inflata, Eragrostis dielsii, Eriachne pulchella* subsp. *dominii, Gomphrena cunninghamii, Goodenia forrestii, Goodenia microptera, Hibiscus sturtii* var. *campylochlamys, Maireana planifolia, Malvastrum americanum, Notoleptopus decaisnei, Paspalidium clementii, Portulaca oleracea, Ptilotus astrolasius, Ptilotus auriculifolius, Ptilotus axillaris, Ptilotus exaltatus, Ptilotus fusiformis, Salsola australis, Senna notabilis, Sida* aff. *fibulifera, Solanum diversiflorum, Solanum horridum, Sporobolus australasicus, Stemodia grossa, Streptoglossa bubakii, Trianthema triquetra, Tribulus astrocarpus, Tribulus hirsutus, Tribulus macrocarpus, Triodia epactia, Triodia wiseana*	87.7	7.5	RMQ16 RMQ19 RMQ24 RMQ46	
River flood plains				
AsyAsc.Te - *Eucalyptus victrix* and *Corymbia hamersleyana* Low Isolated Trees over *Acacia synchronicia* and *A. sclerosperma* subsp. *sclerosperma* Tall Sparse Shrubland over a mixed Low Open Shrubland / Forbland over *Triodia epactia* Sparse Hummock Grassland Associated species: *Abutilon cunninghamii, Abutilon lepidum, Abutilon malvifolium, Abutilon otocarpum, Acacia pyrifolia* var. *pyrifolia, Acacia sclerosperma* subsp. *sclerosperma, Acacia synchronicia, Acacia trachycarpa, Afrohybanthus aurantiacus, Alternanthera nana, Arivela viscosa, Boerhavia coccinea, Bulbostylis barbata, Cenchrus ciliaris, Cenchrus setiger, Corchorus tectus, Corchorus tridens, Corymbia hamersleyana, Dactyloctenium radulans, Dysphania glomulifera* subsp. *eremaea, Dysphania rhadinostachya, Eucalyptus victrix, Euphorbia boophthona, Euphorbia vaccaria* var. *vaccaria, Evolvulus alsinoides* var. *villosicalyx, Goodenia microptera, Gossypium australe, Hakea lorea* subsp. *lorea, Hibiscus sturtii* var. *campylochlamys, Hibiscus sturtii* var. *campylochlamys, Malvastrum americanum, Melhania oblongifolia, Notoleptopus decaisnei, Paspalidium clementii, Phyllanthus erwinii, Phyllanthus maderaspatensis, Polycarpaea holtzei, Portulaca oleracea, Ptilotus appendiculatus, Ptilotus astrolasius, Ptilotus axillaris, Ptilotus exaltatus, Ptilotus fusiformis, Ptilotus obovatus, Rhynchosia minima, Sclerolaena costata, Senna artemisioides* subsp. *oligophylla, Senna notabilis, Setaria verticillata, Sida arsiniata, Sida fibulifera, Solanum cleistogamum, Solanum diversiflorum, Sporobolus australasicus, Trianthema triquetra, Tribulus macrocarpus, Tribulus terrestris, Triodia epactia, Triodia wiseana, Triumfetta clementii, Vachellia farnesiana, Waltheria indica*	91.6	7.9	RMQ26 RMQ28 RMQ41 RMQ44	
Minor creekline / drainage				
Cc.Te - *Corymbia candida* subsp. *candida* Low Woodland to Open Forest over *Acacia synchronicia, A. ancistrocarpa* and *A. trachycarpa* Tall Open Shrubland over a mixed Low Open Shrubland / Forbland over *Triodia epactia* Open Hummock Grassland Associated species: *Abutilon cunninghamii, Abutilon lepidum, Abutilon macrum, Abutilon otocarpum, Abutilon* sp. Pilbara (W.R. Barker 2025), *Acacia ancistrocarpa, Acacia atkinsiana, Acacia bivenosa, Acacia colei* var. *colei, Acacia inaequilatera, Acacia pyrifolia* var. *pyrifolia, Acacia synchronicia, Acacia tumida* var. *pilbarensis, Afrohybanthus aurantiacus, Alternanthera nodiflora, Amaranthus cuspidifolius, Arivela viscosa, Boerhavia repleta, Bonamia pannosa, Bulbostylis barbata, Calandrinia ptychosperma, Calocephalus knappii, Cenchrus setiger, Corchorus tectus, Corchorus tridens, Corymbia candida subsp. candida, Corymbia hamersleyana, Cynodon dactylon, Cynodon prostratus, Cynodon prostratus, Dysphania glomulifera* subsp. *eremaea, Dysphania rhadinostachya* subsp. *inflata, Eragrostis crateriformis, Eragrostis cumingii, Eragrostis dielsii, Eragrostis tenellula, Eremophila longifolia, Euphorbia biconvexa, Euphorbia boophthona, Euphorbia vaccaria* var. *vaccaria, Evolvulus alsinoides* var. *decumbens, Evolvulus alsinoides* var. *villosicalyx, Fimbristylis elegans, Goodenia forrestii, Goodenia lamprosperma, Goodenia microptera, Gossypium australe, Hakea lorea* subsp. *lorea, Hibiscus sturtii* var. *campylochlamys, Indigofera boviperda* subsp. *boviperda, Indigofera linnaei, Ipomoea muelleri, Isotropis atropurpurea, Jasminum didymum* subsp. *lineare, Malvastrum americanum, Melhania oblongifolia, Notoleptopus decaisnei, Paraneurachne muelleri, Paspalidium clementii, Perotis rara, Phyllanthus erwinii, Phyllanthus maderaspatensis, Pluchea rubelliflora, Polycarpaea corymbosa, Polymeria ambigua, Portulaca oleracea, Pterocaulon sphacelatum, Ptilotus appendiculatus, Ptilotus astrolasius, Ptilotus axillaris, Ptilotus exaltatus, Rhynchosia minima, Senna artemisioides* subsp. *oligophylla, Senna notabilis, Setaria verticillata, Sida arsiniata, Sida* sp. L (A.M. Ashby 4202), *Sida* sp. Pilbara (A.A. Mitchell PRP 1543), *Sida* sp. spiciform panicles (E. Leyland s.n. 14/8/90), *Solanum diversiflorum, Sporobolus australasicus, Streptoglossa bubakii, Streptoglossa bubakii, Synaptantha tillaeacea* var. *tillaeacea, Tephrosia uniovulata, Trianthema pilosa, Trianthema triquetra, Trigastrotheca molluginea, Triodia epactia, Triumfetta clementii, Triumfetta johnstonii, Vigna lanceolata* var. *lanceolata, Waltheria indica*	24.5	2.1	RMQ14 RMQ29 RMQ32 RMQ43	

Vegetation unit	Area (ha)	Percentage (%)	Quadrats/ relevés	
Rocky gully creekline				
El.AtuGr - *Eucalyptus leucophloia* Low Open Woodland over *Gossypium robinsonii* and *Acacia tumida* var. *pilbarensis* Tall Open Shrubland over *Acacia arida* Mid Open Shrubland Over *Triodia wiseana*, (*Triodia pisoliticola*) Open Hummock Grassland Associated species: *Abutilon* sp. Dioicum (A.A. Mitchell PRP 1618), *Abutilon* sp. Pilbara (W.R. Barker 2025), *Acacia ancistrocarpa, Acacia arida, Acacia atkinsiana, Acacia bivenosa, Acacia inaequilatera, Acacia trachycarpa, Acacia tumida* var. *pilbarensis, Amaranthus undulatus, Arivela viscosa, Boerhavia coccinea, Cassytha capillaris, Corchorus tectus, Corymbia hamersleyana, Cucumis variabilis, Cullen martinii, Cymbopogon ambiguus, Dysphania rhadinostachya, Eriachne mucronata, Eucalyptus leucophloia, Euphorbia biconvexa, Euphorbia tannensis* subsp. *eremophila, Gossypium australe, Gossypium robinsonii, Hibiscus coatesii, Hibiscus sturtii ?* var. *campylochlamys, Notoleptopus decaisnei, Paspalidium clementii, Petalostylis labicheoides, Pterocaulon sphacelatum, Ptilotus axillaris, Ptilotus fusiformis, Ptilotus incanus, Rhynchosia minima, Senna glutinosa* subsp. *glutinosa, Senna notabilis, Senna venusta, Sida* sp. Pilbara (A.A. Mitchell PRP 1543), *Solanum diversiflorum, Solanum horridum, Tephrosia uniovulata, Themeda triandra, Trichodesma zeylanicum var. zeylanicum, Triodia pisoliticola, Triodia wiseana, Triumfetta chaetocarpa*	1.8	0.2	RMQ36	
Major creekline				
EcEv.Mg - *Eucalyptus camaldulensis* subsp. *refulgens* and *E. victrix* Mid Closed Forest over *Melaleuca glomerata, Gossypium robinsonii* and *Acacia trachycarpa* Tall Sparse Shrubland over *Eulalia aurea*, and other mixed species Grassland / Forbland Associated species: *Abutilon* aff. *hannii, Abutilon lepidum, Acacia ancistrocarpa, Acacia bivenosa, Acacia colei* var. *colei, Acacia pyrifolia* var. *pyrifolia, Acacia synchronicia, Acacia trachycarpa, Afrohybanthus aurantiacus, Alternanthera nana, Amaranthus undulatus, Arivela viscosa, Blumea tenella, Boerhavia coccinea, Bonamia pilbarensis, Bulbostylis barbata, Calandrinia ptychosperma, Cenchrus ciliaris, Cenchrus setiger, Centipeda minima subsp. macrocephala, Chloris pectinata, Chrysopogon fallax, Corchorus tectus, Corchorus tridens, Cucumis variabilis, Cymbopogon ambiguus, Cynodon prostratus, Cyperus vaginatus, Dactyloctenium radulans, Datura leichhardtii* subsp. *leichhardtii, Duperreya commixta, Dysphania rhadinostachya* subsp. *rhadinostachya, Eragrostis tenellula, Eriachne flaccida, Eriachne pulchella, Eucalyptus camaldulensis* subsp. *refulgens, Eucalyptus victrix, Euphorbia boophthona, Euphorbia careyi, Euphorbia hirta, Euphorbia trigonosperma, Euphorbia vaccaria* var. *vaccaria, Evolvulus alsinoides* var. *decumbens, Evolvulus alsinoides* var. *villosicalyx, Goodenia lamprosperma, Goodenia microptera, Gossypium australe, Gossypium robinsonii, Hibiscus sturtii* var. *campylochlamys, Indigofera boviperda* subsp. *boviperda, Ipomoea muelleri, Jasminum didymum* subsp. *lineare, Malvastrum americanum, Marsilea drummondii, Melaleuca glomerata, Melhania oblongifolia, Nicotiana benthamiana, Notoleptopus decaisnei, Paspalidium clementii, Phyllanthus erwinii, Phyllanthus maderaspatensis, Polycarpaea longiflora, Portulaca oleracea, Pterocaulon sphacelatum, Ptilotus astrolasius, Ptilotus auriculifolius, Ptilotus axillaris, Ptilotus exaltatus, Rhynchosia minima, Senna artemisioides* subsp. *oligophylla, Senna notabilis, Sesbania cannabina, Setaria dielsii, Sida* sp. L (A.M. Ashby 4202), *Sida* sp. spiciform panicles (E. Leyland s.n. 14/8/90), *Solanum cleistogamum, Solanum diversiflorum, Sporobolus australasicus, Stemodia grossa, Stylobasium spathulatum, Synaptantha tillaeacea* var. *tillaeacea, Tephrosia rosea* var. Fortescue creeks, *Themeda triandra, Trianthema triquetra, Triodia epactia, Triodia wiseana, Triumfetta clementii, Vachellia farnesiana, Vigna lanceolata* var. *lanceolata, Wahlenbergia tumidifructa, Waltheria indica,*	54	4.6	RMQ25 RMQ27 RMQ40	
Ev.Atu - *Eucalyptus victrix* Mid Woodland over *Acacia tumida* var. *pilbarensis* and *Gossypium robinsonii* Tall Open Shrubland over a mixed Sparse Forbland Associated species: *Abutilon macrum, Abutilon otocarpum, Abutilon* sp. Pilbara (W.R. Barker 2025), *Acacia atkinsiana, Acacia bivenosa, Acacia bivenosa, Acacia pyrifolia* var. *pyrifolia, Acacia trachycarpa, Acacia trachycarpa x tumida* var. *pilbarensis, Acacia tumida* var. *pilbarensis, Afrohybanthus aurantiacus, Alternanthera nana, Alternanthera nodiflora, Amaranthus cuspidifolius, Arivela viscosa, Bergia pedicellaris, Blumea tenella, Bonamia pilbarensis, Calandrinia ptychosperma, Calocephalus knappii, Cenchrus ciliaris, Cenchrus setiger, Centipeda minima subsp. macrocephala, Corchorus tectus, Corymbia candida subsp. candida, Corymbia hamersleyana, Crotalaria medicaginea, Cullen leucochaites, Cullen martinii, Cynodon prostratus, Dysphania glomulifera, Dysphania rhadinostachya, Echinochloa colona, Eragrostis cumingii, Eragrostis tenellula, Eremophila longifolia, Eriachne ? benthamii, Eucalyptus victrix, Eulalia aurea, Euphorbia biconvexa, Euphorbia vaccaria* var. *vaccaria, Evolvulus alsinoides* var. *decumbens, Evolvulus alsinoides var. villosicalyx, Fimbristylis elegans, Goodenia forrestii, Goodenia lamprosperma, Gossypium australe, Gossypium robinsonii, Hibiscus sturtii* var. *campylochlamys, Indigofera boviperda, Ipomoea muelleri, Isotropis atropurpurea, Jasminum didymum subsp. lineare, Malvastrum americanum, Marsilea costulifera, Melhania oblongifolia, Notoleptopus decaisnei, Paraneurachne muelleri, Paspalidium clementii, Petalostylis labicheoides, Phyllanthus erwinii, Phyllanthus maderaspatensis, Pluchea dunlopii, Pluchea ferdinandi-muelleri, Pluchea rubelliflora, Portulaca oleracea, Pterocaulon sphacelatum, Ptilotus axillaris, Rhynchosia minima, Senna artemisioides subsp. oligophylla, Senna notabilis, Setaria verticillata, Sida fibulifera, Sida rohlenae* subsp. *rohlenae, Sida* sp. L (A.M. Ashby 4202), *Sida* sp. L (A.M. Ashby 4202), *Sida* sp. spiciform panicles (E. Leyland s.n. 14/8/90), *Solanum diversiflorum, Sporobolus australasicus, Streptoglossa bubakii, Synaptantha tillaeacea var. tillaeacea, Tephrosia rosea* var. Fortescue creeks, *Tephrosia supina, Tephrosia uniovulata, Themeda triandra, Trianthema triquetra, Triodia epactia, Triumfetta johnstonii, Vachellia farnesiana, Vigna lanceolata var. lanceolata, Vigna lanceolata* var. *lanceolata, Wahlenbergia tumidifructa, Waltheria indica*	1	0.1	RMQ39	
MaEc.Mg.Cv - *Melaleuca argentea* and *Eucalyptus camaldulensis* subsp. *refulgens* Mid Open Forest over *Melaleuca glomerata* Tall Open Shrubland over *Cyperus vaginatus* Open Sedgeland Associated species: *Melaleuca argentea, Melaleuca glomerata, Gossypium robinsonii, Petalostylis labicheoides, Cyperus vaginatus, Eulalia aurea, Triodia epactia, Acacia colei var. colei, Tephrosia rosea* var. Fortescue creeks, *Acacia trachycarpa, Sesbania cannabina, Cyperus difformis, Rotala diandra, Schenkia australis, Bergia pedicellaris, Ammannia multiflora, Goodenia lamprosperma, Wahlenbergia tumidifructa, Blumea tenella, Pluchea rubelliflora, Bergia trimera, Marsilea costulifera, Alternanthera nodiflora, Sporobolus australasicus, Eragrostis tenellula, Stemodia grossa, Eragrostis cumingii, Vigna lanceolata* var. *lanceolata, Ipomoea muelleri, Phyllanthus maderaspatensis, Evolvulus alsinoides* var. *decumbens, Cenchrus ciliaris, Malvastrum americanum, Centipeda minima, Senna notabilis, Arivela viscosa, Euphorbia trigonosperma, Corchorus tridens, Goodenia microptera, Acacia synchronicia, Eriachne flaccida, Crotalaria medicaginea, Acacia pyrifolia* var. *pyrifolia, Afrohybanthus aurantiacus, Cyperus leptocarpus, Pseudognaphalium luteoalbum, Eleocharis atropurpurea, Rotala mexicana*	0.3	0.0	RMRKM10	

4.2.2.3 Vegetation condition

Vegetation condition within the survey area ranged from Excellent to Completely Degraded (Figure K; Table 16). More than 85% of the vegetation within the survey area was in Very Good or Excellent condition with little or no infestation from weeds or disturbance from other factors. The creek lines and drainage lines and some low-lying parts of the survey area, however, were in poorer condition due to disturbance by cattle and weeds (predominantly **Euphorbia hirta* and **Cenchrus ciliaris)* and vehicle tracks from historical exploration activities.

Table 16: Vegetation condition within the survey area

Vegetation condition		Survey area	
		Hectares (ha)	Percentage (%)
E	Excellent	672.4	57.7
VG	Very Good	323.2	27.7
G-VG	Good-Very Good	54.1	4.6
G	Good	98.8	8.5
P	Poor	7.1	0.6
D	Degraded	0	0
CD	Completely Degraded	9.6	0.8

4.2.2.4 Vegetation of conservation significance within the survey area

Nine of the vegetation units defined for the survey area are considered to be of high conservation significance (Table 17). Five of these units (mapped over 272 ha) are of conservation significance due to the presence of Priority Flora, and one of these units, El.Aa.TwTp, likely represents a new record of the P3 PEC *Triodia pisoliticola assemblages of mesas of the West Pilbara.* The other four vegetation units (mapped over a total of 147 ha) represent groundwater dependent vegetation.

The extent of these conservation significant vegetation types within the survey area is presented in Figure L.

Table 17: Conservation significant vegetation within the survey area

Veg unit	Description	Significance
El.Aa.TwTp	*Eucalyptus leucophloia* low isolated clumps of trees over *Acacia arida* isolated clumps of shrubs over *Triodia wiseana and T. Pisoliticola* sparse hummock grassland	Presence of Priority flora (*Triodia pisoliticola*)
Asy.EcrTe	*Acacia synchronicia* mid open shrubland over *Triodia epactia* open hummock grassland (with intermittent clay pans with ephemeral open forbland and open tussock grassland)	Presence of Priority flora (*Eragrostis crateriformis*)
Ax.Te	*Acacia xiphophylla* tall open shrubland over *A. Synchronicia* mid sparse shrubland over a mixed low open shrubland / forbland over Triodia epactia sparse hummock grassland	Presence of Priority flora (*Eragrostis crateriformis*)
Cc.Te	*Corymbia candida* subsp. *Candida* low woodland to open forest over *Acacia synchronicia, A. Ancistrocarpa* and *A. Trachycarpa* tall open shrubland over a mixed low open shrubland / forbland over *Triodia epactia* open hummock grassland	Presence of Priority flora (*Eragrostis crateriformis* and *Goodenia nuda*)
El.AtuGr	Eucalyptus leucophloia low open woodland over *Gossypium robinsonii* and *Acacia tumida var. pilbarensis* tall open shrubland over acacia Arida mid open shrubland over *Triodia wiseana, (Triodia pisoliticola*) open hummock grassland	Presence of Priority flora (*Triodia pisoliticola*)
AsyAsc.Te	*Eucalyptus victrix* and *Corymbia hamersleyana* low isolated trees over *Acacia synchronicia* and *A. Sclerosperma* subsp. *sclerosperma* tall sparse shrubland over a mixed low open shrubland / forbland over *Triodia epactia* sparse hummock grassland	Groundwater dependent vegetation
EcEv.Mg	*Eucalyptus camaldulensis* subsp. *Refulgens* and *E. Victrix* mid closed forest over *melaleuca glomerata, Gossypium robinsonii* and *Acacia trachycarpa* tall sparse shrubland over *Eulalia aurea*, and other mixed species grassland / forbland	Groundwater dependent vegetation
Ev.Atu	*Eucalyptus victrix* mid woodland over *Acacia tumida* var. *pilbarensis* and *Gossypium robinsonii* tall open shrubland over a mixed sparse forbland	Groundwater dependent vegetation
MaEc.Mg.Cv	*Melaleuca argentea* and *Eucalyptus camaldulensis* subsp. *refulgens* mid open forest over *Melaleuca glomerata* tall open shrubland over *Cyperus vaginat*us open sedgeland	Groundwater dependent vegetation

5 DISCUSSION

5.1 Floristic diversity and representation

In assessing the conservation significance of flora within the survey area, consideration is given to rarity, biodiversity, endemism and representativeness of the flora in the area.

5.1.1 Rarity and endemism

The rarity of the flora was assessed via the various categories of TF (protected under the BC Act and under the EPBC Act) and PF (listed by DBCA), as well as via other criteria relating to range, endemism, restricted habitat or other anomalies (according to EPA (2016)).

No TF or putative new taxa were recorded within the survey area for the current survey.

Three PF species as currently listed by the DBCA were recorded within the survey area – *Triodia pisoliticola* (P3), *Eragrostis crateriformis* (P3) and *Goodenia nuda* (P4).

Triodia pisoliticola was abundant and widespread on the mesa breakaways and in the rocky gullies and drainage lines on the mesa slopes. More than 12,000 individuals were recorded at 412 locations along the edge of the mesa top, on the narrow shelves and terraces of the breakaway, at the base of the breakaways and in the mesa gorges and gullies, often as a dominant, within the El.Aa.TwTp and El.AtuGr vegetation units. The species is associated with the P3 PEC *Triodia pisoliticola assemblages of mesas of the West Pilbara.*

Eragrostis crateriformis was fairly abundant and widespread across the broad flood plains, claypans and drainage lines within the survey area with around 2,800 individuals recorded at 302 locations. The species is associated with three vegetation units - Asy.EcrTe, Ax.Te and Cc.Te. The closest record of the species, according to the DBCA database searches, is 88 km to the south-west of the survey area.

Goodenia nuda was recorded within the Cc.Te vegetation unit which is associated with some of the drainage lines and clay depressions within the survey area. Approximately 117 individuals were recorded at 26 locations.

Additionally, a total of five flora taxa of 'other' conservation significance based on one or more criteria listed in EPA (2016) were recorded within the survey area. Four of these taxa represented significant extensions of their known ranges or new localities, and one (*Abutilon* aff. *fraseri*) had anomalous features indicating a potential new species.

Rarity of the flora within the survey area was assessed as high, based on the number of conservation significant taxa, and their abundance and extent throughout the survey area.

5.1.2 Biodiversity

A total of 343 native vascular flora taxa (species, subspecies, varieties and forms) were recorded from 50 quadrats and four relevés for the current survey which represents 24% of the total number of native taxa recorded for the Hamersley (PIL3) subregion.

Floral biodiversity within the survey area was assessed as high.

5.2 Vegetation conservation significance

5.2.1 Regional representation

Beard's 1:1,000,000 scale vegetation mapping of Western Australia (Beard 1979), defines the vegetation within the survey area as belonging to two vegetation associations, Vegetation Association 583 - Sparse shrub-steppe - Hummock grassland with sparse shrubs *Triodia* spp. *Acacia* spp., and Vegetation Association 29 - Low woodland, open low woodland or sparse woodland - Mulga *Acacia aneura* and associated species. Both of these vegetation associations have >99% of their pre-European extent remaining in Western Australia and within the Hamersley (PIL3) subregion.

5.2.2 Commonwealth-listed threatened ecological communities

No known records of any Commonwealth-listed TECs occur within the survey area, nor is any of the vegetation described and mapped for the survey area likely to represent a Commonwealth-listed TEC.

5.2.3 State-listed threatened and priority ecological communities

No known records of any state-listed TECs occur within the survey area, nor is any of the vegetation described and mapped for the survey area likely to represent a state-listed TEC.

One record of the P1 PEC *Subterranean invertebrate communities of mesas in the Robe Valley region* occurs within the survey area. This PEC extends across a series of isolated mesas in the Robe Valley which includes the mesa within the survey area.

Although not currently listed by the DBCA as a PEC record, the vegetation unit El.Aa.TwTp, defined and mapped for the mesa breakaways within the survey area, likely represents a new record of the P3 PEC *Triodia pisoliticola assemblages of mesas of the West Pilbara,* based on the presence of key species *Triodia pisoliticola* and *Acacia citrinoviridis,* proximity of known records of the PEC (<2.5 km away), and presence of defining habitat (mesa slopes and peaks).

5.2.4 Vegetation of 'other' conservation significance

Although not TECs or PECs, nine of the vegetation units described and mapped for the survey area are considered to be of high conservation significance. Conservation significant vegetation accounts for 419 ha (36%) of the survey area.

Five are conservation significant due to the presence of PF. The mesa breakaway vegetation unit El.Aa.TwTp and stony gully/creekline vegetation unit El.AtuGr are significant for the presence of PF taxon *Triodia pisoliticola* which occurs as a dominant throughout both units. The breakaway unit El.Aa.TwTp also likely represents a new record of the P3 PEC *Triodia pisoliticola assemblages of mesas of the West Pilbara.* The flood plain (with intermittent claypans) and drainage line vegetation units Asy.EcrTe, Ax.Te and Cc.Te are significant for the presence of PF *Eragrostis crateriformis,* where it occurred predominantly along the margins (and islands) of the claypans and in the clayey depressions. *Goodenia nuda* was also recorded at low density throughout the Cc.Te unit. These vegetation units account for 272 ha (23%) of the survey area.

Four vegetation units are considered conservation significant as they represent groundwater dependent vegetation. These units are associated with the major creeklines and adjacent river flood plains within the survey area. These units, EcEv.Mg, MaEc.Mg.Cv, Ev.Atu and AsyAsc.Te support a high floristic diversity and unique species assemblages. Groundwater dependent vegetation indicator species recorded for these units included *Melaleuca argentea, Eucalyptus camaldulensis* subsp. *refulgens,* and *Eucalyptus victrix. Melaleuca argentea* is considered an obligate phreatophyte meaning it is highly dependent on groundwater, and access to groundwater is critically important to the species' persistence. *Eucalyptus camaldulensis* subsp. *refulgens* and *Eucalyptus victrix* are facultative phreatophytes and use groundwater opportunistically during periods of drought but are not totally reliant on it, they are considered to be moderately dependent on groundwater (RTIO 2020). These vegetation units account for 147 ha (13%) of the survey area.

Vegetation conservation significance within the survey area was assessed as high.

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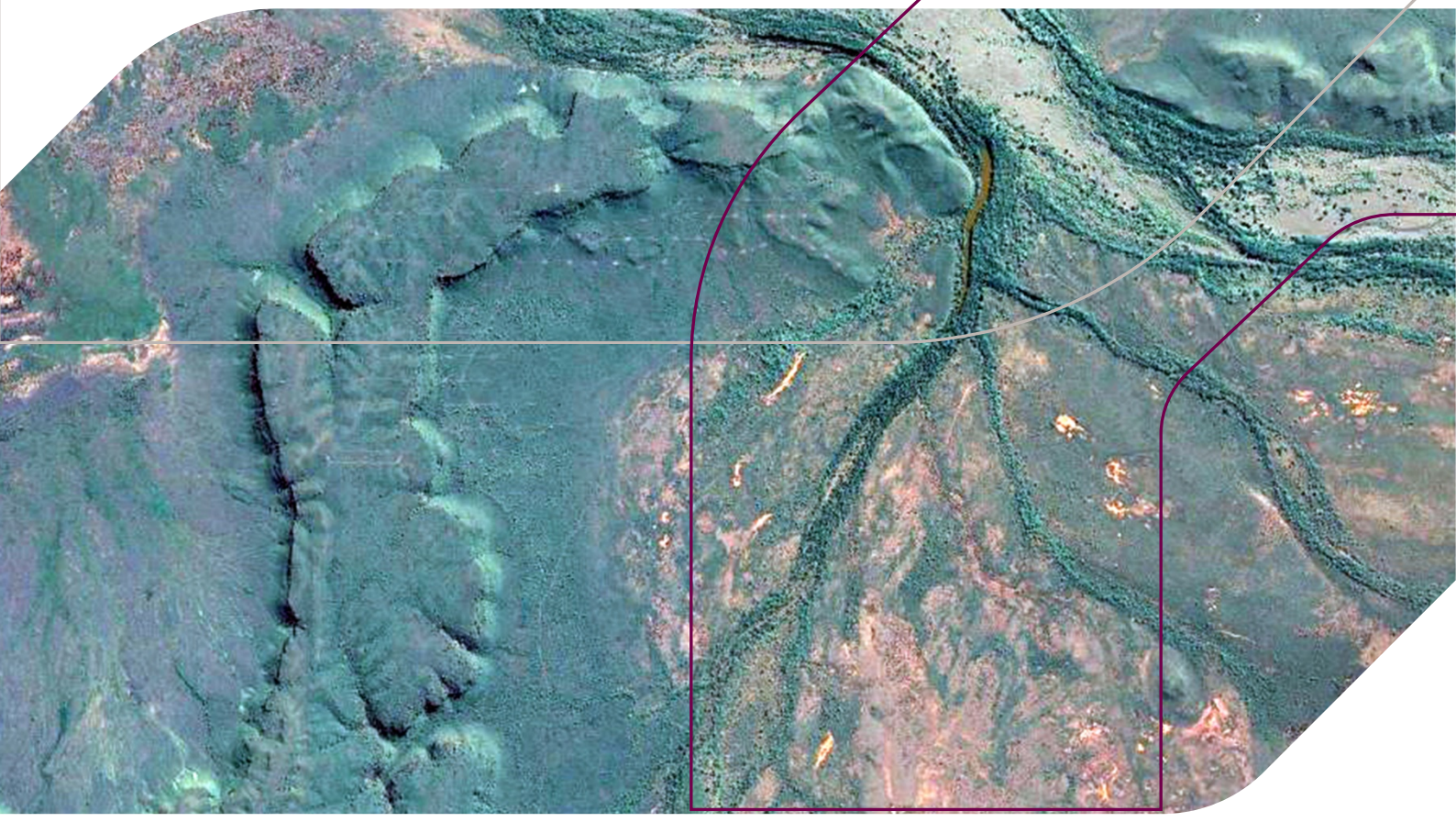
Figures



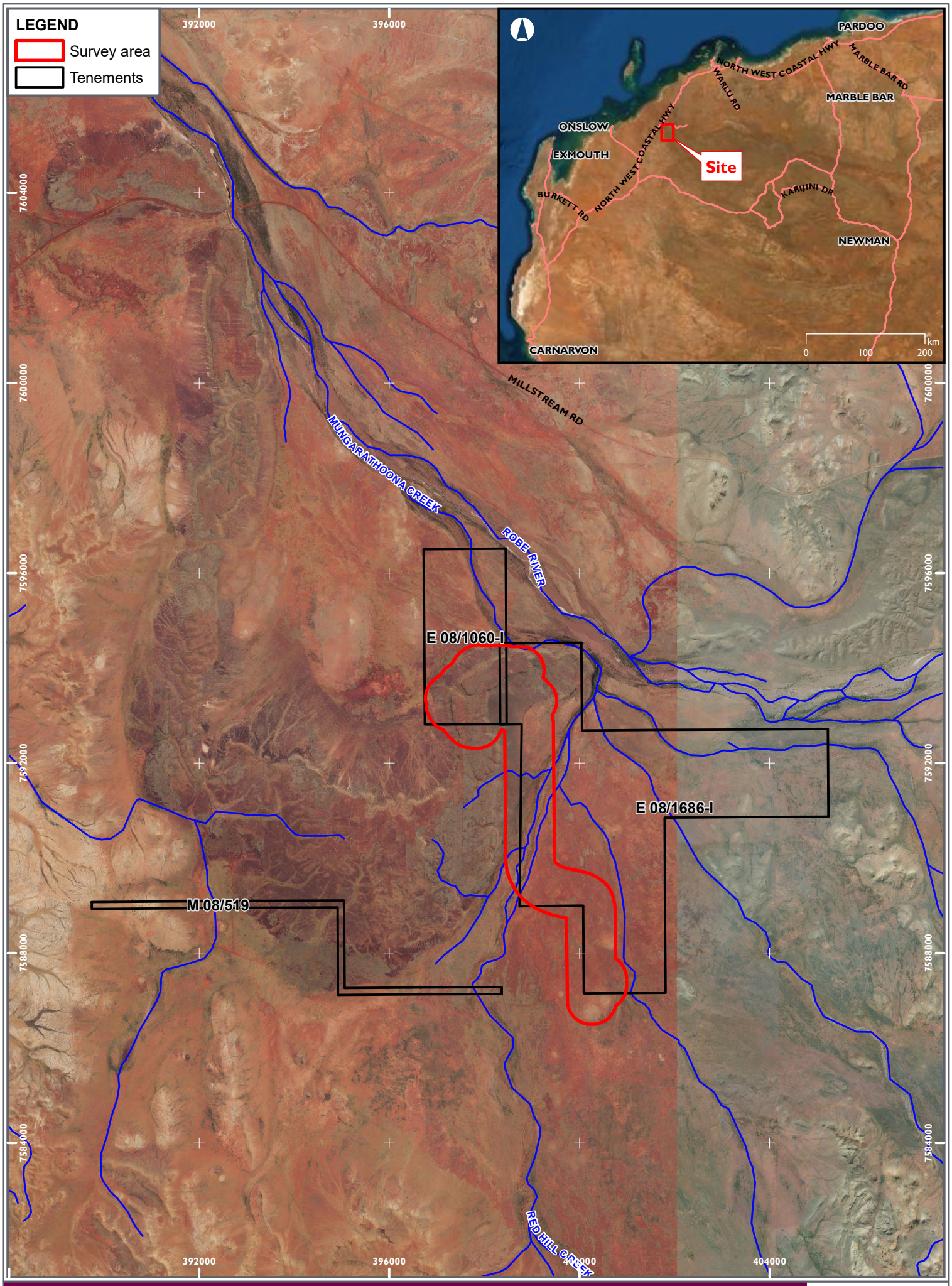


Figure A

Regional location

GDA 1994 MGA Zone 50

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Created by: MA
Source: Imagery - Landgate

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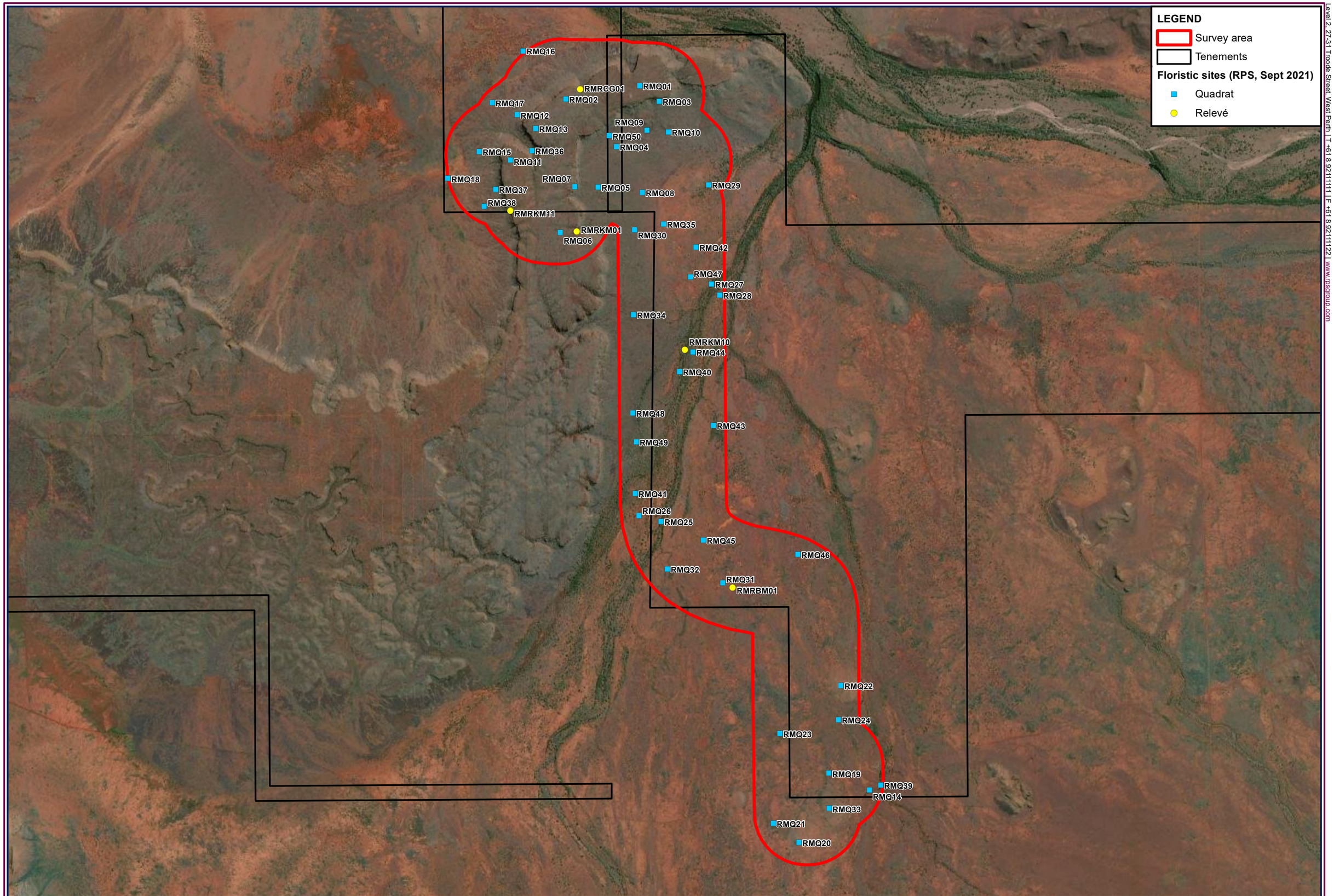

Figure B

Floristic quadrat and relevé locations

GDA 1994 MGA Zone 50

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Date: 28.09.21
Scale: 1:32,500 @ A3
Created by: MA
Source: Orthophoto - Esri World imagery

Document Path: G:\Jobs\L_Jobs\L20161 - Robe Mesa Flora\Figures L20161-002\L20161-002_G_FigB Floristic quadrat and releve_210928.mxd

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LEGEND

- Survey area
- Tenements
- Tracks

Rangeland land system mapping

- 350 - Capricorn Land System - Rugged sandstone hills, ridges, stony footslopes and interfluves supporting low acacia shrublands or hard spinifex grasslands with scattered shrubs.
- 551 - Newman Land System - Rugged jaspilite plateaux, ridges and mountains supporting hard spinifex grasslands.
- 583 - River Land System - Narrow, seasonally active flood plains and major river channels supporting moderately close, tall shrublands or woodlands of acacias and fringing communities of eucalypts sometimes with tussock grasses or spinifex.
- 584 - Robe Land System - Low plateaux, mesas and buttes of limonite supporting soft spinifex and occasionally hard spinifex grasslands.
- 593 - Sherlock Land System - Stony alluvial plains supporting snakewood shrublands with patchy tussock grasses and spinifex grasslands
- 694 - Boolgeeda Land System - Stony lower slopes and plains below hill systems supporting hard and soft spinifex grasslands or mulga shrublands.
- 751 - Nanutarra Land System - Low mesas and hills of sedimentary rocks supporting soft and hard spinifex shrubby grasslands.
- 761 - Stuart Land System - Gently undulating stony plains supporting hard and soft spinifex grasslands and snakewood shrublands.
- 798 - Urandy Land System - Stony plains, alluvial plains and drainage lines supporting shrubby soft spinifex grasslands.

MUNGARAITHONA CREEK
ROBE RIVER
MILLSTREAM RD
E 08/1060-I
E 08/1686-I
M 08/519

Figure C

Land systems - WA Rangelands

GDA 1994 MGA Zone 50
0 0.5 1 2 km

Job Number: L20151-002
Date: 28.09.21
Scale: 1:50,000 @ A3
Created by: MA
Source: Orthophoto - Esri World imagery

Document Path: G:\Jobs\L_Jobs\L20161 - Robe Mesa Flora\Figures L20161-002\L20161-002_G_FigC Land systems_210928.mxd

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LEGEND

- Survey area
- Tenements
- Tracks

WA Surface geology 1:1M (DMIRS)

Map symbol - Formation - Llithology description

- Czlr - Robe Pisolite - Pisolitic, oolitic, and massive limonite, goethite, and hematite deposits containing fossil wood fragments; iron ore
- Kswn - Nanutarra Formation - Shale, ferruginous and glauconitic quartz sandstone, siltstone, micaceous siltstone; poorly sorted conglomerate
- Lsy - Wyloo Group - Shale, sandstone, greywacke, dolomite, phyllite, quartz-mica schist, felsic volcanic rocks, chert, chert breccia, mudstone, siltstone, conglomerate
- Lsya - Ashburton Formation - Mudstone interbedded with sandstone and dolomite; intruded by sills
- Qa - alluvium 38485 - Channel and flood plain alluvium; gravel, sand, silt, clay, locally calcreted
- Qrc - colluvium 38491 - Colluvium, sheetwash, talus; gravel piedmonts and aprons over and around bedrock; clay-silt-sand with sheet and nodular kankar; alluvial and aeolian sand-silt-gravel in depressions and broad valleys in Canning Basin; local calcrete, reworked laterite

MUNGARAITHONA CREEK
ROBE RIVER
MILLSTREAM RD
E 08/1060-I
E 08/1686-I
M 08/519
Lsya
Lsy
Qrc
Czlr
Qa

Figure D

Surface geology

GDA 1994 MGA Zone 50
0 0.5 1 2 km

Job Number: L20161-002
Date: 28.09.21
Scale: 1:50,000 @ A3
Created by: MA
Source: Orthophoto - Esri World imagery

Document Path: G:\Jobs\L_Jobs\L20161 - Robe Mesa Flora\Figures L20161-002\L20161-002_G_FigD Surface Geology_210928.mxd

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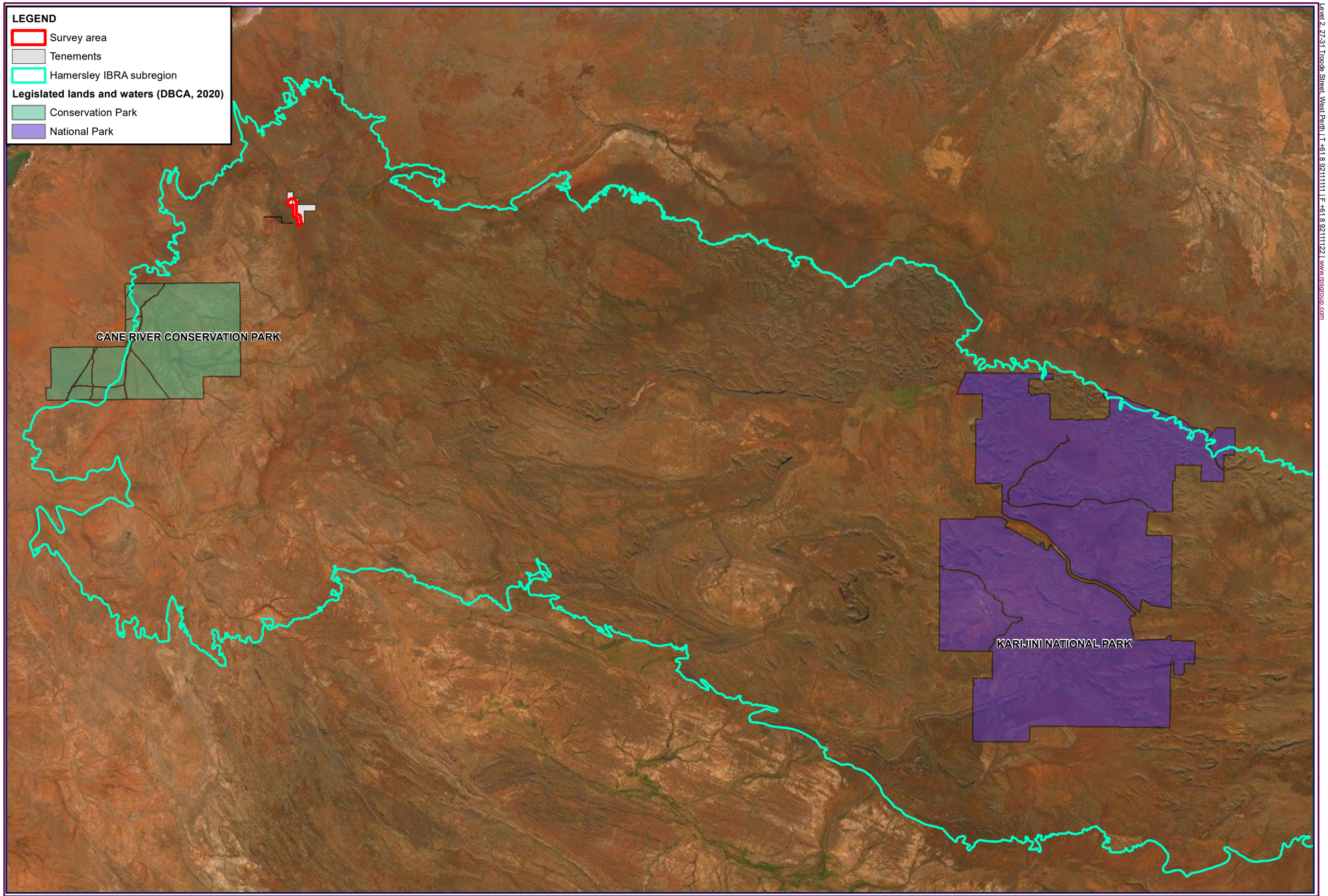

Figure E

Conservation reserves

GDA 1994 MGA Zone 50

0 10 20 40 km

Job Number: L20161-002
Date: 28.09.21
Scale: 1:1,003,872 @ A3
Created by: MA
Source: Orthophoto - Esri World imagery

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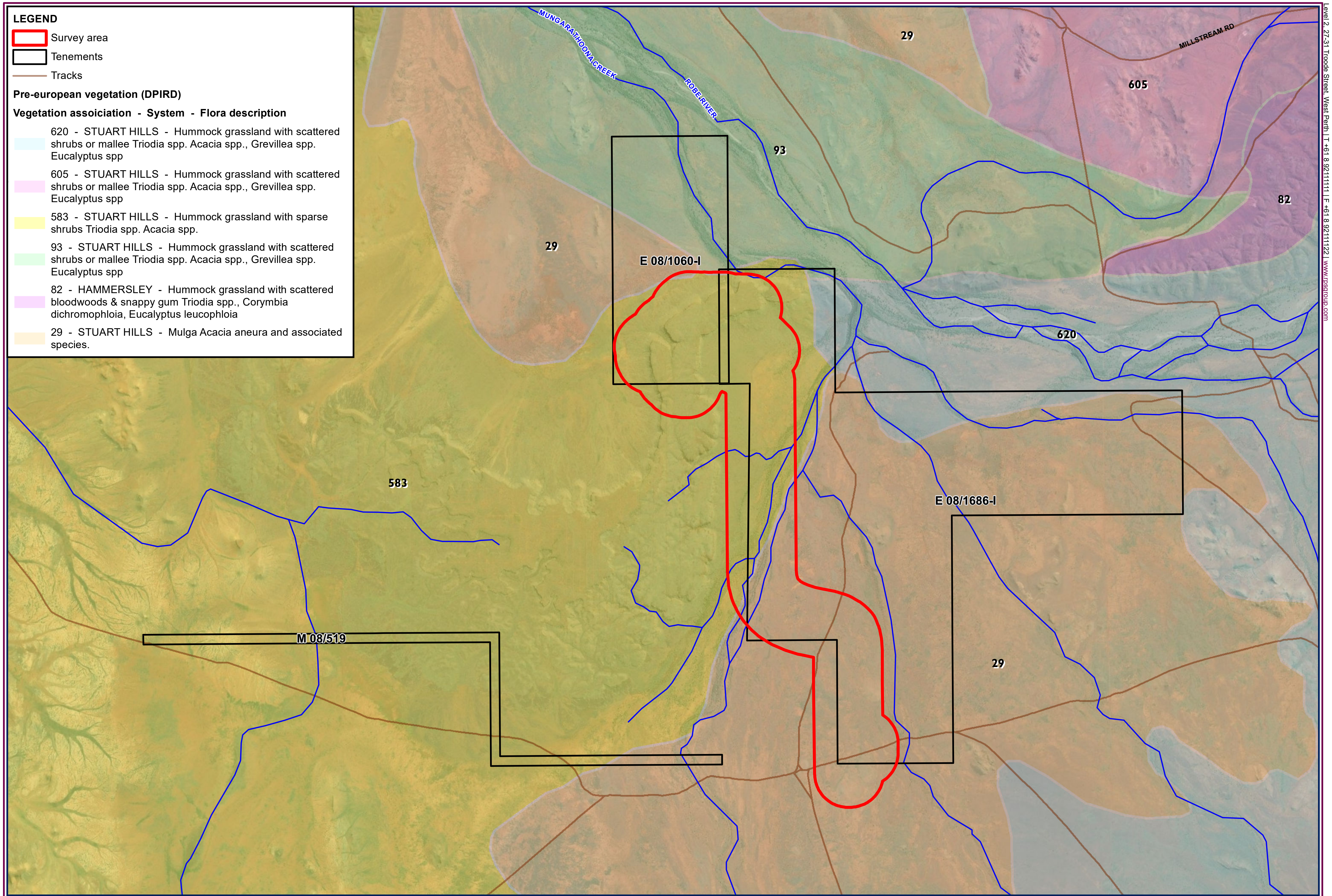

Figure F

Pre-European vegetation mapping

GDA 1994 MGA Zone 50

0 0.5 1 2 km

Job Number: L20161-002
Date: 28.09.21
Scale: 1:50,000 @ A3
Created by: MA
Source: Orthophoto - Esri World imagery

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Document Path: G:\Jobs\L_Jobs\L20161 - Robe Mesa Flora\Figures L20161-002\L20161-002_G_FigF Pre-European vegetation_210928.mxd

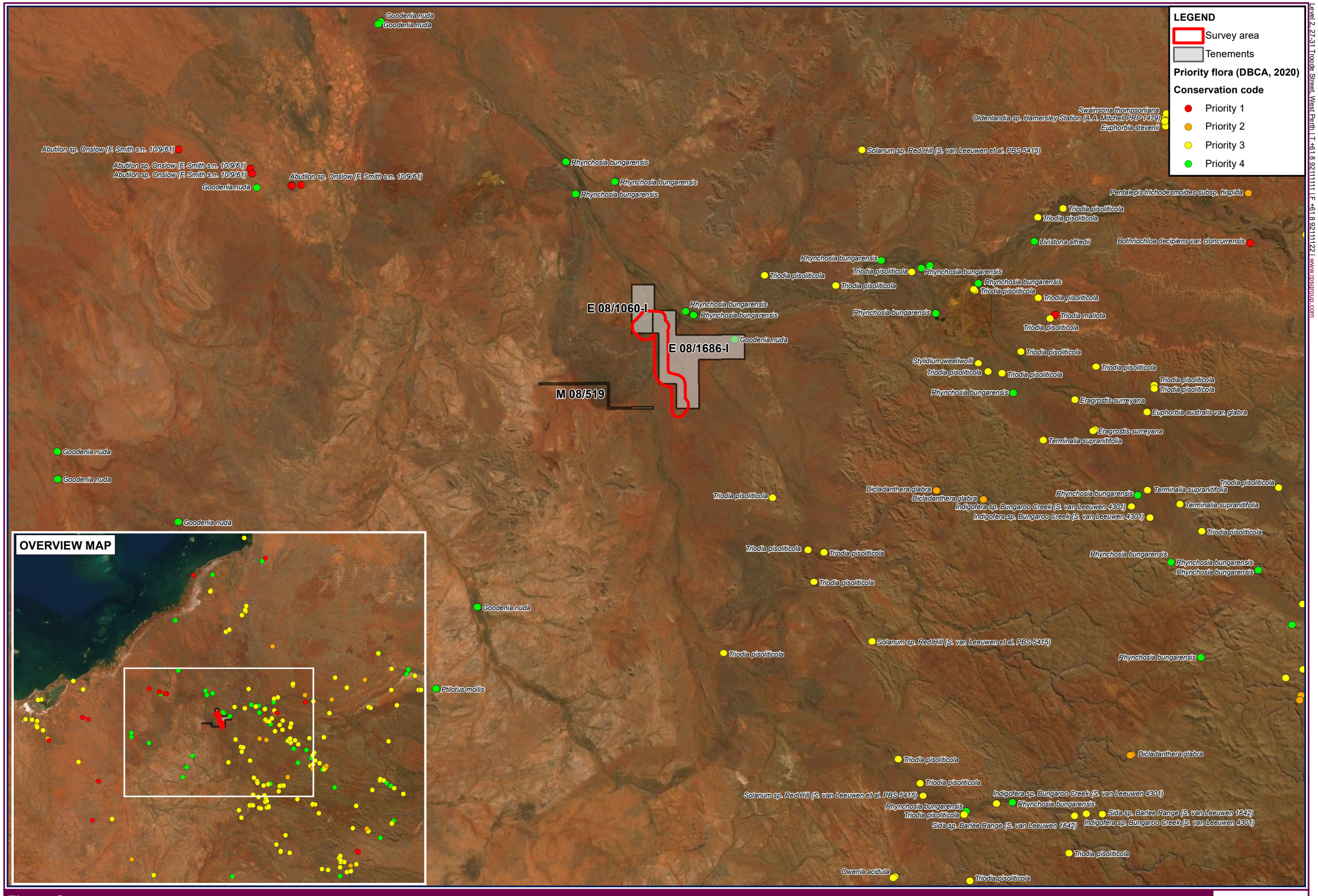

Figure G

Conservation significant flora database search results (DBCA)

GDA 1994 MGA Zone 50

0 2.5 5 10 km

Job Number: L20161-002
Date: 28.09.21
Scale: 1:250,000 @ A3
Created by: MA
Source: Orthophoto - Esri World imagery

Document Path: G:\Jobs\L_Jobs\L20161 - Robe Mesa Flora\Figures L20161-002\L20161-002_G_FigG Significant flora DBCA_210928.mxd

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LEGEND

- Survey area
- Tenements

TEC PEC Search results (DBCA, 2020)

Conservation code

- Priority 1
- Priority 3

Four plant assemblages of the Wona Land System (previously 'Cracking clays of the Chichester and Mungaroona Range')

Subterranean invertebrate community of pisolitic hills in the Pilbara

Sand Sheet vegetation (Robe Valley)

Subterranean invertebrate communities of mesas in the Robe Valley region

Tanpool Land System

Tanpool Land System

Tanpool Land System

E 08/1060-I

E 08/1686-I

M 08/519

Subterranean invertebrate communities of mesas in the Robe Valley region

Subterranean invertebrate communities of mesas in the Robe Valley region

Subterranean invertebrate community of pisolitic hills in the Pilbara

Subterranean invertebrate communities of mesas in the Robe Valley region

Subterranean invertebrate communities of mesas in the Robe Valley region

Triodia pisoliticola (previously *Triodia* sp. Robe River) assemblages of mesas of the West Pilbara

Stygofaunal Community of the Bungaroo Aquifer

Kumina Land System

Kumina Land System

Kumina Land System

Kumina Land System

Kumina Land System

Triodia pisoliticola (previously *Triodia* sp. Robe River) assemblages of mesas of the West Pilbara

Triodia pisoliticola (previously *Triodia* sp. Robe River) assemblages of mesas of the West Pilbara

Figure H

Conservation significant ecological communities database search results (DBCA)

GDA 1994 MGA Zone 50

0 2.5 5 10 km

Job Number: L20161-002
Date: 28.09.21
Scale: 1:250,000 @ A3
Created by: MA
Source: Orthophoto - Esri World imagery

Document Path: G:\Jobs\L_Jobs\L20161 - Robe Mesa Flora\Figures L20161-002\L20161-002_G_FigH Ecological communities DBCA_210928.mxd

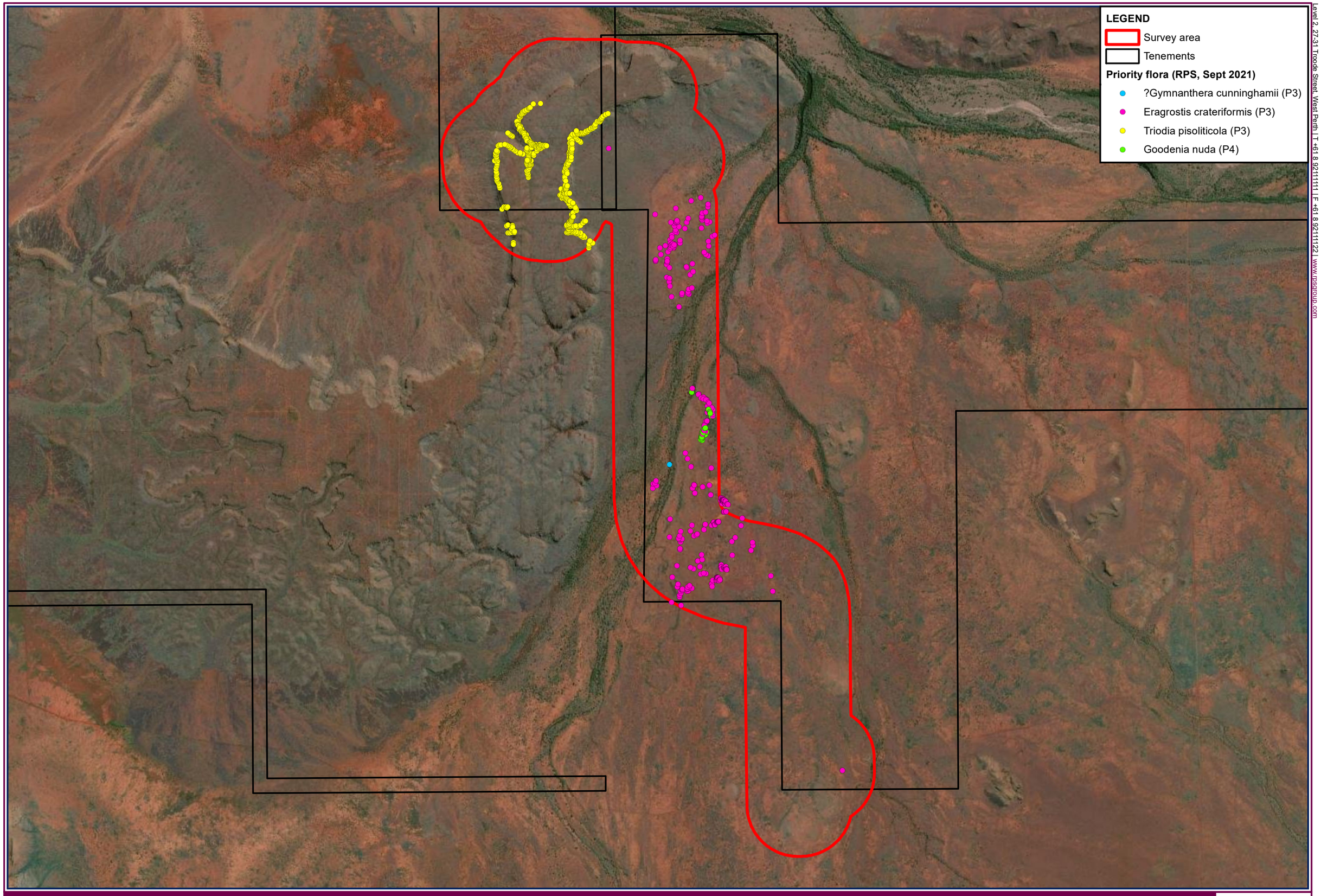

Figure I

Significant flora RPS survey

GDA 1994 MGA Zone 50

0 0.25 0.5 1 km

Job Number: L20151-002
Date: 28.09.21
Scale: 1:32,500 @ A3
Created by: MA
Source: Orthophoto - Esri World imagery

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Veg unit	Description
Mesa top	
Aar.Tw	*Acacia arida* Mid Sparse Shrubland over *Triodia wiseana* Hummock Grassland
Mesa breakaways and gorges	
El.Aa.TwTp	*Eucalyptus leucophloia* Low Isolated Clumps of Trees over *Acacia arida* Isolated Clumps of Shrubs over *Triodia wiseana and T. pisoliticola* Sparse Hummock Grassland
Mesa slopes	
El.Ab.Tw	*Eucalyptus leucophloia* Low Isolated Trees over *Acacia bivenosa* Mid Open Shrubland to Isolated Shrubs over *Triodia wiseana* Hummock Grassland
Mesa footslopes	
Ch.Ai.Te	*Corymbia hamersleyana* Low Isolated Trees over *Acacia inaequilatera* Mid to Tall Sparse Shrubland over *Triodia epactia* Hummock Grassland
Ab.Tw	*Acacia bivenosa* and *Acacia* spp. Mid Open Shrubland over *Ptilotus* spp. and *Senna* spp. Low Sparse Shrubland over *Triodia wiseana* Hummock Grassland
Low basalt hills	
Aspp.Tw	*Acacia* spp. Mid Isolated Shrubs over a mixed Low Open to Sparse Shrubland over *Triodia wiseana* Open Hummock Grassland
Floodplains	
Aat.Te	*Acacia atkinsiana*, *A. ancistrocarpa* and *A. sclerosperma* subsp. *sclerosperma* Tall Shrubland to Sparse Shrubland over mixed species Low Sparse Shrubland over *Triodia epactia* Hummock Grassland
ChAc.Te	*Corymbia hamersleyana* Low Open Woodland over *Acacia citrinoviridis* Tall Sparse Shrubland over *Triodia epactia* Hummock Grassland
Broad floodplains with claypans	
Asy.EcrTe	*Acacia synchronicia* Mid Open Shrubland over *Triodia epactia* Open Hummock Grassland (with intermittent clay pans with ephemeral Open Forbland and Open Tussock Grassland)
Ax.Te	*Acacia xiphophylla* Tall Open Shrubland over *A. synchronicia* Mid Sparse Shrubland over a mixed Low Open Shrubland / Forbland over Triodia epactia Sparse Hummock Grassland
River floodplains	
AsyAsc.Te	*Eucalyptus victrix* and *Corymbia hamersleyana* Low Isolated Trees over *Acacia synchronicia* and *A. sclerosperma* subsp. *sclerosperma* Tall Sparse Shrubland over a mixed Low Open Shrubland / Forbland over *Triodia epactia* Sparse Hummock Grassland
Minor creekline / drainage	
Cc.Te	*Corymbia candida* subsp. *candida* Low Woodland to Open Forest over *Acacia synchronicia, A. ancistrocarpa* and *A. trachycarpa* Tall Open Shrubland over a mixed Low Open Shrubland / Forbland over *Triodia epactia* Open Hummock Grassland
Minor creekline	
El.AtuGr	*Eucalyptus leucophloia* Low Open Woodland over *Gossypium robinsonii* and *Acacia tumida* var. *pilbarensis* Tall Open Shrubland over *Acacia arida* Mid Open Shrubland Over *Triodia wiseana*, (*Triodia pisoliticola*) Open Hummock Grassland
Major creekline	
EcEv.Mg	*Eucalyptus camaldulensis* subsp. *refulgens* and *E. victrix* Mid Closed Forest over *Melaleuca glomerata, Gossypium robinsonii* and *Acacia trachycarpa* Tall Sparse Shrubland over *Eulalia aurea*, and other mixed species Grassland / Forbland
Ev.Atu	*Eucalyptus victrix* Mid Woodland over *Acacia tumida* var. *pilbarensis* and *Gossypium robinsonii* Tall Open Shrubland over a mixed Sparse Forbland
MaEc.Mg.Cv	*Melaleuca argentea* and *Eucalyptus camaldulensis* subsp. *refulgens* Mid Open Forest over *Melaleuca glomerata* Tall Open Shrubland over *Cyperus vaginatus* Open Sedgeland

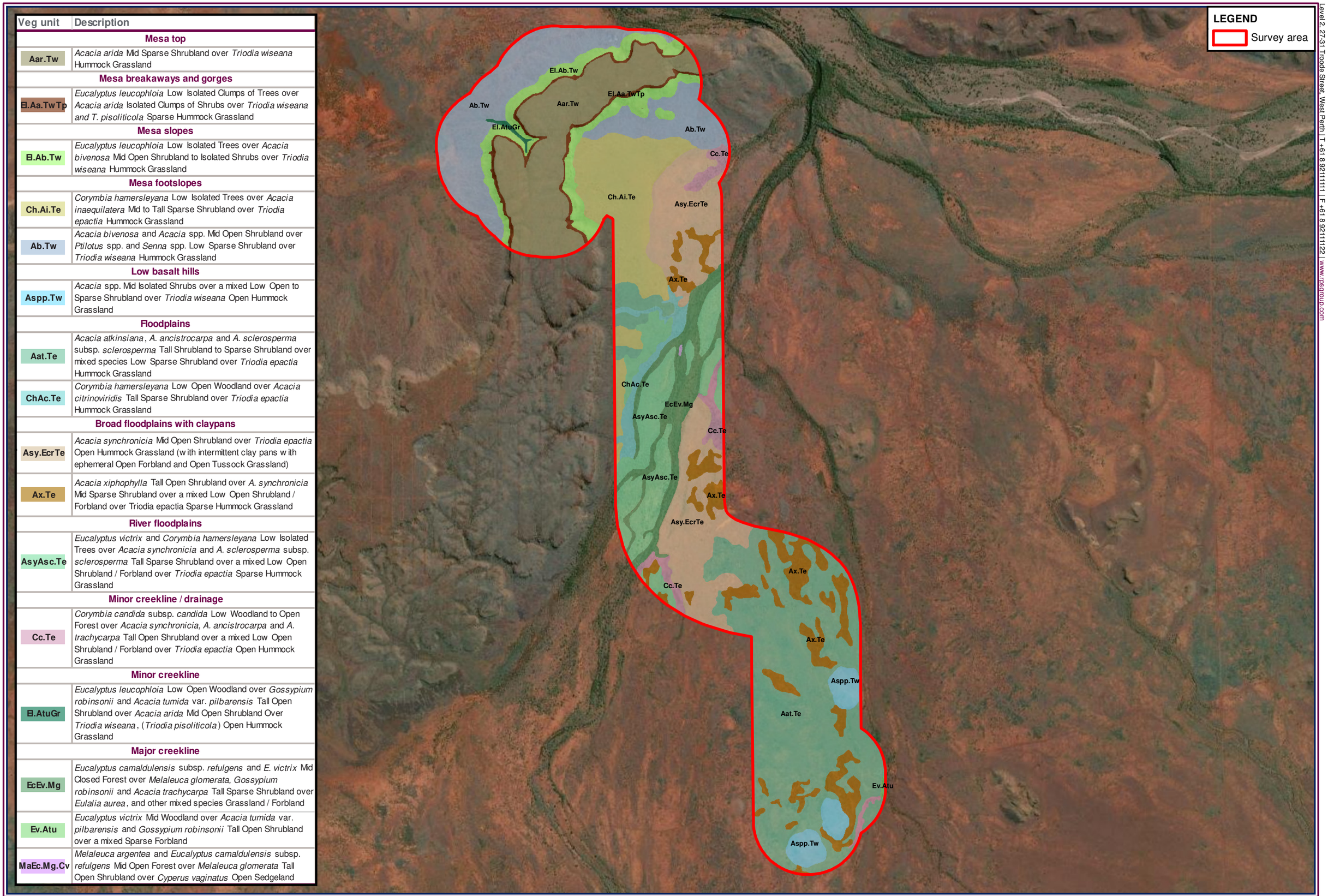

Figure J

Vegetation units

GDA 1994 MGA Zone 50

0 0.25 0.5 1 km

Job Number: L20151-002
Date: 28.09.21
Scale: 1:31,500 @ A3
Created by: MA
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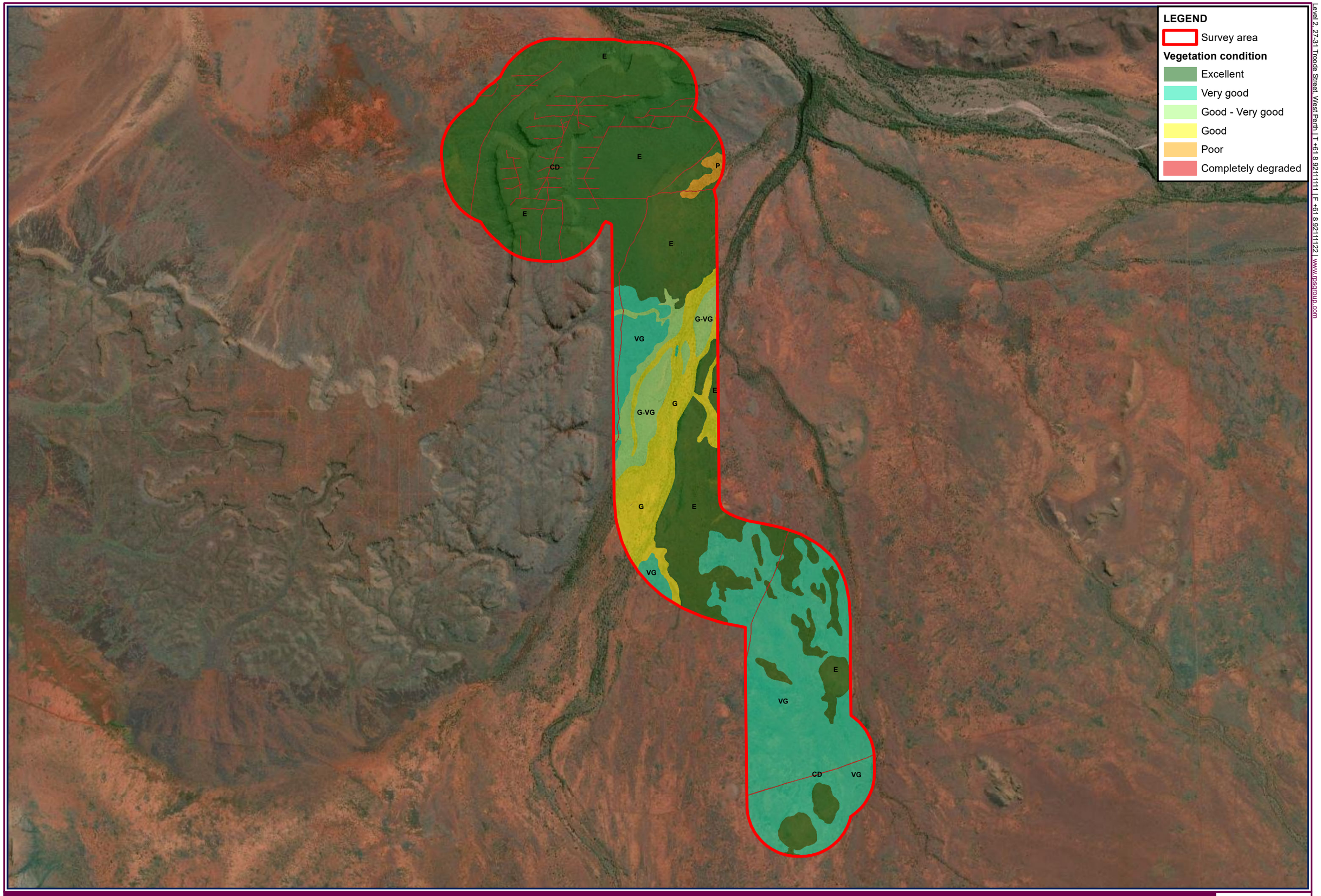

Figure K

Vegetation condition

GDA 1994 MGA Zone 50

0 0.25 0.5 1 km

Job Number: L20151-002
Date: 28.09.21
Scale: 1:32,500 @ A3
Created by: MA
Source: Orthophoto - Esri World imagery

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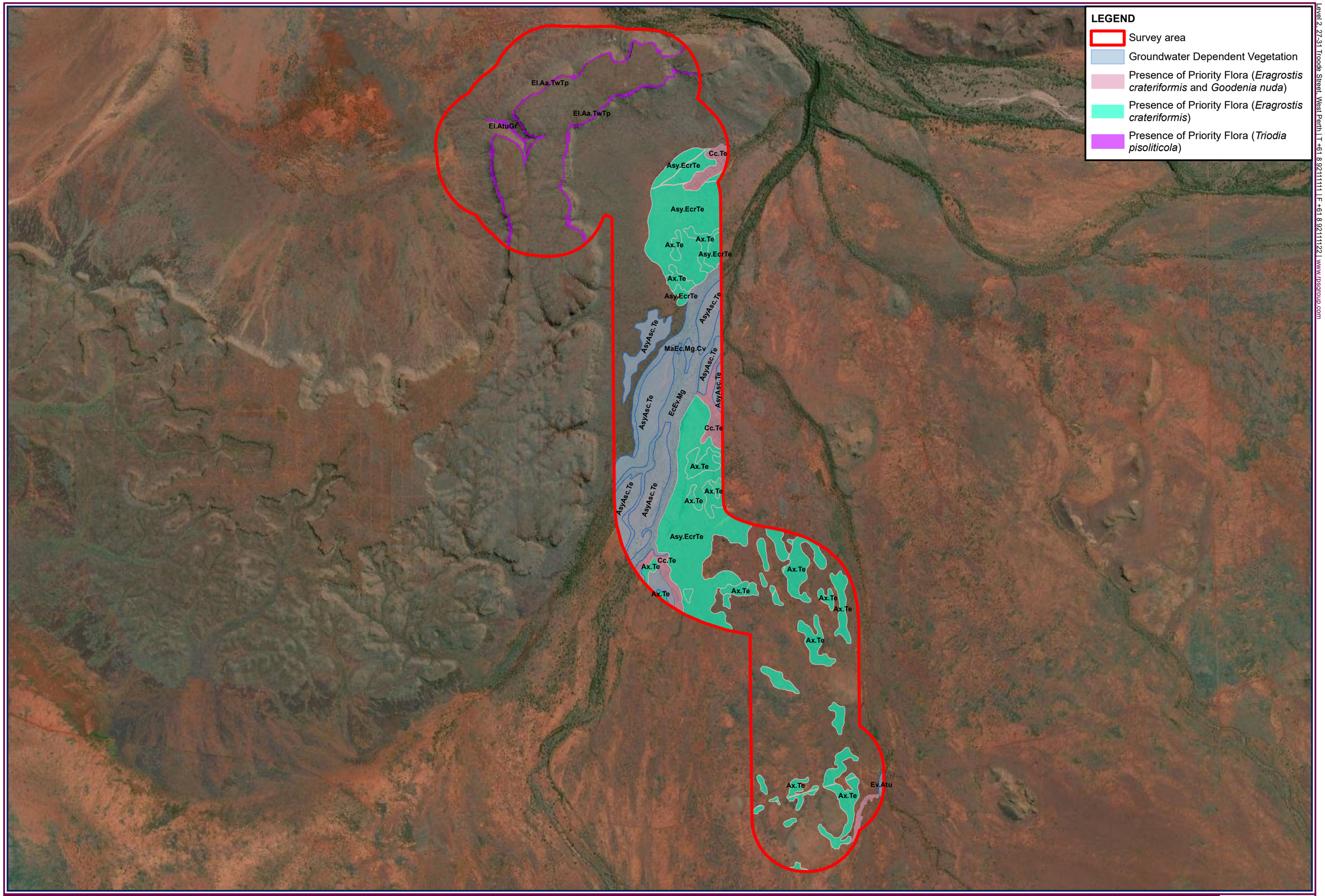

Figure L

Conservation significant vegetation

Job Number: L20151-002
Date: 28.09.21
Scale: 1:31,500 @ A3
Created by: MA
Source: Orthophoto - Esri World imagery

Document Path: G:\Jobs\L_Jobs\L20161 - Robe Mesa Flora\Figures L20161-002\L20161-002_G_FigL Conservation significant Veg RPS_210928.mxd

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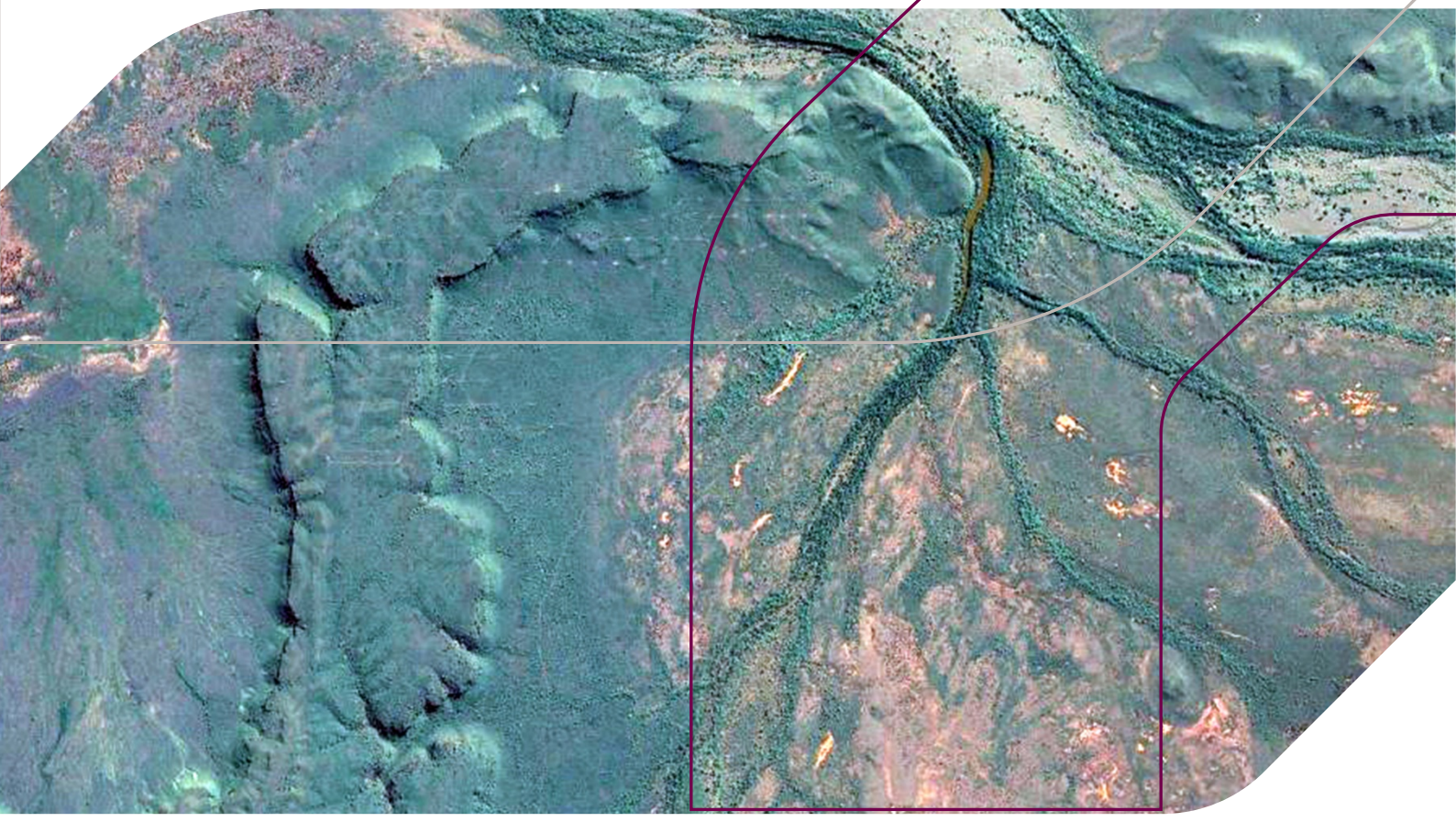
Appendix A
Definitions



APPENDIX A: DEFINITIONS

Table A-1: Conservation codes for Western Australian flora (DBCA 2019)

Category	Definition
T	Listed by order of the Minister as Threatened in the category of critically endangered, endangered or vulnerable under section 19(1), or is a rediscovered species to be regarded as threatened species under section 26(2) of the *Biodiversity Conservation Act 2016* (BC Act). **Threatened flora** is that subset of 'Rare Flora' listed under schedules 1 to 3 of the Wildlife Conservation (Rare Flora) Notice 2018 for Threatened Flora. The assessment of the conservation status of these species is based on their national extent and ranked according to their level of threat using IUCN Red List categories and criteria as detailed below. • CR: Critically Endangered – considered to be "facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with criteria set out in the ministerial guidelines". • EN: Endangered – considered to be "facing a very high risk of extinction in the wild in the near future, as determined in accordance with criteria set out in the ministerial guidelines" • VU: Vulnerable – considered to be "facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with criteria set out in the ministerial guidelines".
EX	Species where "there is no reasonable doubt that the last member of the species has died", and listing is otherwise in accordance with the ministerial guidelines (section 24 of the BC Act). Published as presumed extinct under the Wildlife Conservation (Rare Flora) Notice 2018 for extinct flora.
EW	Species that "is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; and it has not been recorded in its known habitat or expected habitat, at appropriate seasons, anywhere in its past range, despite surveys over a time frame appropriate to its life cycle and form", and listing is otherwise in accordance with the ministerial guidelines (section 25 of the BC Act). Currently there are no threatened flora species listed as extinct in the wild. If listing of a species as extinct in the wild occurs, then a schedule will be added to the applicable notice.
P1	Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes.
P2	Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, e.g. national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes.
P3	Species that are known from several locations, and the species does not appear to be under imminent threat, or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. Species may be included if they are comparatively well known from several locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them.
P4	a. Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection but could be if present circumstances change. These species are usually represented on conservation lands. b. Near Threatened. Species that are considered to have been adequately surveyed and that are close to qualifying for vulnerable but are not listed as Conservation Dependent. c. Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.

Table A-2: EPBC Act conservation categories (IUCN Red List 2019)

Category	Definition
EX	**Extinct** A taxon is Extinct when there is no reasonable doubt that the last individual has died. A taxon is presumed Extinct when exhaustive surveys in known and/or expected habitat, at appropriate times (diurnal, seasonal, annual) throughout its historic range have failed to record an individual. Surveys should be over a time frame appropriate to the taxon's life cycle and life form.
EW	**Extinct in the Wild** A taxon is Extinct in the Wild when it is known only to survive in cultivation, in captivity or as a naturalised population (or populations) well outside the past range. A taxon is presumed Extinct in the Wild when exhaustive surveys in known and/or expected habitat, at appropriate times (diurnal, seasonal, annual) throughout its historic range have failed to record an individual. Surveys should be over a time frame appropriate to the taxon's life cycle and life form.
CR	**Critically Endangered** A taxon is Critically Endangered when the best available evidence indicates that it meets any of the criteria A to E for Critically Endangered (see Section V), and it is therefore considered to be facing an extremely high risk of extinction in the wild.
EN	**Endangered** A taxon is Endangered when the best available evidence indicates that it meets any of the criteria A to E for Endangered (see Section V), and it is therefore considered to be facing a very high risk of extinction in the wild.
VU	**Vulnerable** A taxon is Vulnerable when the best available evidence indicates that it meets any of the criteria A to E for Vulnerable (see Section V), and it is therefore considered to be facing a high risk of extinction in the wild.
NT	**Near Threatened** A taxon is Near Threatened when it has been evaluated against the criteria but does not qualify for Critically Endangered, Endangered or Vulnerable now, but is close to qualifying for or is likely to qualify for a threatened category in the near future.
LC	**Least Concern** A taxon is Least Concern when it has been evaluated against the criteria and it does not qualify for Critically Endangered, Endangered, Vulnerable or Near Threatened. Widespread and abundant taxa are included in this category.
DD	**Data Deficient** A taxon is Data Deficient when there is inadequate information to make a direct, or indirect, assessment of its risk of extinction based on its distribution and/or population status. A taxon in this category may be well studied, and its biology well known, but appropriate data on abundance and/or distribution are lacking. Data Deficient is therefore not a category of threat. Listing of taxa in this category indicates that more information is required and acknowledges the possibility that future research will show that threatened classification is appropriate. It is important to make positive use of whatever data are available. In many cases, great care should be exercised in choosing between DD and a threatened status. If the range of a taxon is suspected to be relatively circumscribed, and a considerable period has elapsed since the last record of the taxon, threatened status may well be justified.
NE	**Not Evaluated** A taxon is Not Evaluated when it has not yet been evaluated against the criteria.

Table A-3: Threatened Ecological Communities Category of Threat (English and Blyth 1997)

Category	Definition
Presumed Totally Destroyed (PD)	An ecological community will be listed as presumed totally destroyed if there are no recent records of the community being extant and either of the following applies: 1. Records within the last 50 years have not been confirmed despite thorough searches or known or likely habitats or 2. All occurrences recorded within the last 50 years have since been destroyed.
Critically Endangered (CR)	An ecological community will be listed as Critically Endangered when it has been adequately surveyed and is found to be facing an extremely high risk of total destruction in the immediate future. This will be determined on the basis of the best available information, by it meeting any one or more of the following criteria: 1. The estimated geographic range, and/or total area occupied, and/or number of discrete occurrences since European settlement have been reduced by at least 90% and either or both of the following apply: – Geographic range, and/or total area occupied and/or number of discrete occurrences are continuing to decline such that total destruction of the community is imminent (within approximately five years). – Modification throughout its range is continuing such that in the immediate future (within approximately five years) the community is unlikely to be capable of being substantially rehabilitated. 2. Current distribution is limited, and one or more of the following apply (a, b or c): a. Geographic range and/or number of discrete occurrences, and/or area occupied is highly restricted and the community is currently subject to known threatening processes which are likely to result in total destruction throughout its range in the immediate future (within approximately five years). b. There are very few occurrences, each of which is small and/or isolated and extremely vulnerable to known threatening processes. c. There may be many occurrences but total area is very small and each occurrence is small and/or isolated and extremely vulnerable to known threatening processes. 3. The ecological community exists only as highly modified occurrences which may be capable of being rehabilitated if such work begins in the immediate future (within approximately five years).
Endangered (EN)	An ecological community will be listed as Endangered when it has been adequately surveyed and is not Critically Endangered but is facing a very high risk of total destruction in the near future. This will be determined on the basis of the best available information, by it meeting any one or more of the following criteria (1, 2, or 3): 1. The estimated geographic range, and/or total area occupied, and/or number of discrete occurrences since European settlement have been reduced by at least 70% and either or both of the following apply (a or b): a. Geographic range, and/or total area occupied and/or number of discrete occurrences are continuing to decline such that total destruction of the community is likely in the short term (within approximately 10 years). b. Modification throughout its range is continuing such that in the short term future (within approximately 10 years) the community is unlikely to be capable of being substantially restored or rehabilitated. 2. Current distribution is limited, and one or more of the following apply (a, b or c): a. Geographic range and/or number of discrete occurrences, and/or area occupied is highly restricted and the community is currently subject to known threatening processes which are likely to result in total destruction throughout its range in the short term future (within approximately 10 years). b. There are very few occurrences, each of which is small and/or isolated and extremely vulnerable to known threatening processes. c. There may be many occurrences but total area is very small and each occurrence is small and/or isolated and extremely vulnerable to known threatening processes. 3. The ecological community exists only as highly modified occurrences which may be capable of being rehabilitated if such work begins in the short term future (within approximately ten years).

Category	Definition
Vulnerable (VU)	An ecological community will be listed as Vulnerable when it has been adequately surveyed and is not Critically Endangered or Endangered but is facing a high risk of total destruction in the medium to long term future. This will be determined on the basis of the best available information, by it meeting any one or more of the following criteria (1, 2 or 3): 1. The ecological community exists largely as modified occurrences which are likely to be capable of being substantially restored or rehabilitated. 2. The ecological community can be modified or destroyed and would be vulnerable to threatening processes, is restricted in area and/or range and/or is only found at a few locations. 3. The ecological community may still be widespread but is believed likely to move into a category of higher threat in the medium to long-term future because of existing or impending threatening processes.
Data Deficient (DD)	An ecological community which has not been adequately evaluated with respect to status or where there is currently insufficient information to assign it to a particular category. (An ecological community with poorly known distribution or biology that is suspected to belong to any of the above categories. These ecological communities have a high priority for survey and/or research.)
Lower Risk (LR)	An ecological community that has been adequately surveyed and does not qualify for any of the above categories of threat and appears unlikely to be under threat of significant modification or destruction in the short to medium term future.

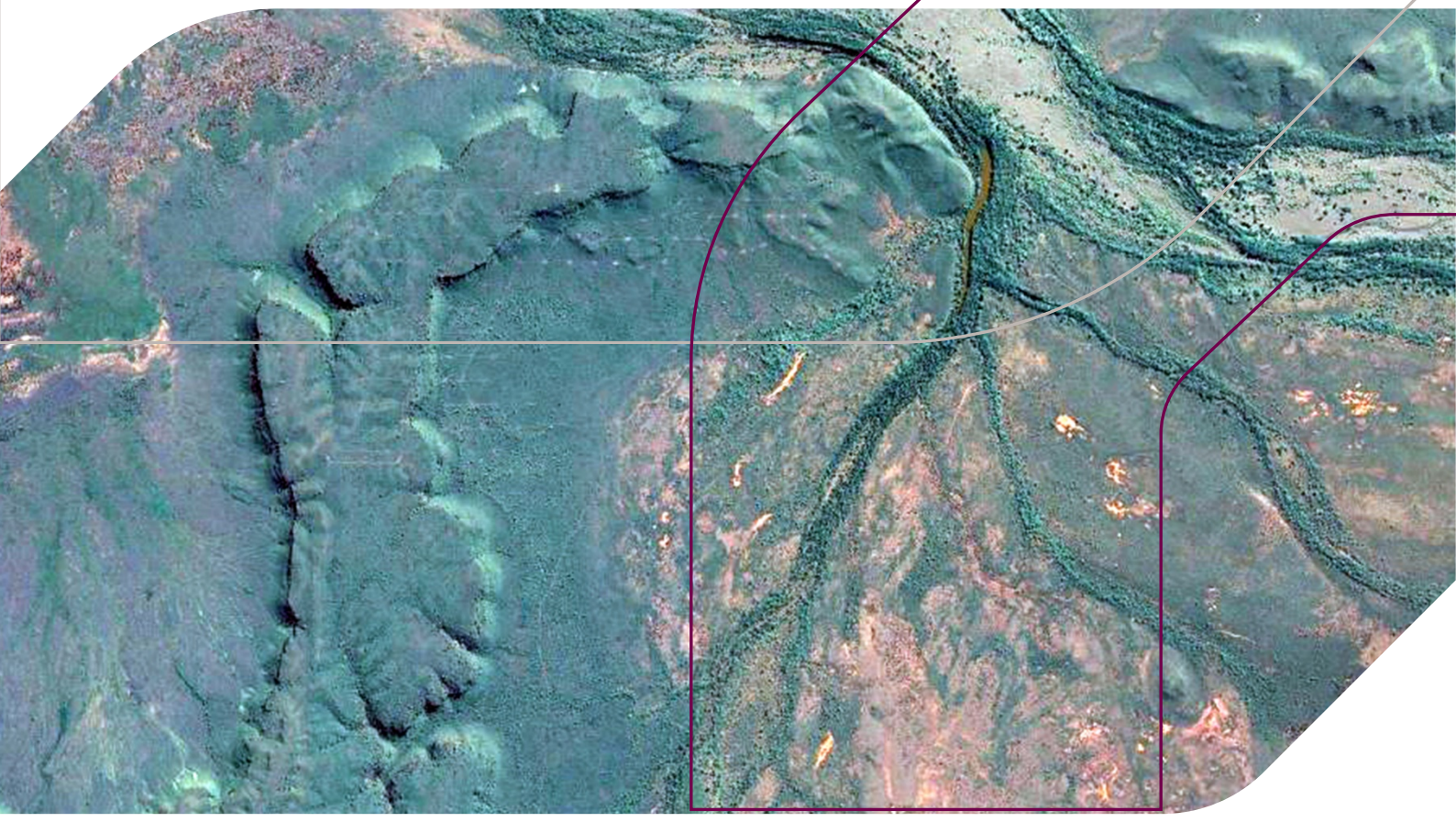
Table A-4: Priority ecological communities category definitions (DEC 2013)

Category	Definition
P1	**Priority One: Poorly-known ecological communities** Ecological communities with apparently few, small occurrences, all or most not actively managed for conservation (e.g. within agricultural or pastoral lands, urban areas, active mineral leases) and for which current threats exist. Communities may be included if they are comparatively well-known from one or more localities but do not meet adequacy of survey requirements, and/or are not well defined, and appear to be under immediate threat from known threatening processes across their range.
P2	**Priority Two: Poorly-known ecological communities** Communities that are known from few small occurrences, all or most of which are actively managed for conservation (e.g. within national parks, conservation parks, nature reserves, state forest, unallocated Crown land, water reserves, etc.) and not under imminent threat of destruction or degradation. Communities may be included if they are comparatively well known from one or more localities but do not meet adequacy of survey requirements, and/or are not well defined, and appear to be under threat from known threatening processes.
P3	**Priority Three: Poorly known ecological communities** Communities that are known from several to many occurrences, a significant number or area of which are not under threat of habitat destruction or degradation, or: Communities known from a few widespread occurrences, which are either large or within significant remaining areas of habitat in which other occurrences may occur, much of it not under imminent threat, or, Communities made up of large, and/or widespread occurrences that may or not be represented in the reserve system but are under threat of modification across much of their range from processes such as grazing by domestic and/or feral stock, and inappropriate fire regimes. Communities may be included if they are comparatively well known from several localities but do not meet adequacy of survey requirements and/or are not well defined, and known threatening processes exist that could affect them.
P4	**Priority Four: Ecological communities that are adequately known, rare but not threatened or meet criteria for Near Threatened or that have been recently removed from the threatened list. These communities require regular monitoring** Rare. Ecological communities known from few occurrences that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection but could be if present circumstances change. These communities are usually represented on conservation lands. Near Threatened. Ecological communities that are considered to have been adequately surveyed and that do not qualify for Conservation Dependent, but that are close to qualifying for Vulnerable. Ecological communities that have been removed from the list of threatened communities during the past five years.
P5	**Priority Five: Conservation Dependent ecological communities** Ecological communities that are not threatened but are subject to a specific conservation program, the cessation of which would result in the community becoming threatened within five years.

Table A-5: EPBC Act listed threatened ecological communities' category of threat

Category	Definition
CR	**Critically Endangered** If an ecological community is facing an extremely high risk of extinction in the wild in the immediate future.
EN	**Endangered** If an ecological community is not Critically Endangered but is facing a very high risk of extinction in the wild in the immediate future.
VU	**Vulnerable** If an ecological community is not Critically Endangered or Endangered but is facing a very high risk of extinction in the wild in the medium term future.

Appendix B
Flora likelihood of occurrence



APPENDIX B: FLORA LIKELIHOOD OF OCCURRENCE

Table B-1 Flora likelihood of occurrence ranks and definitions

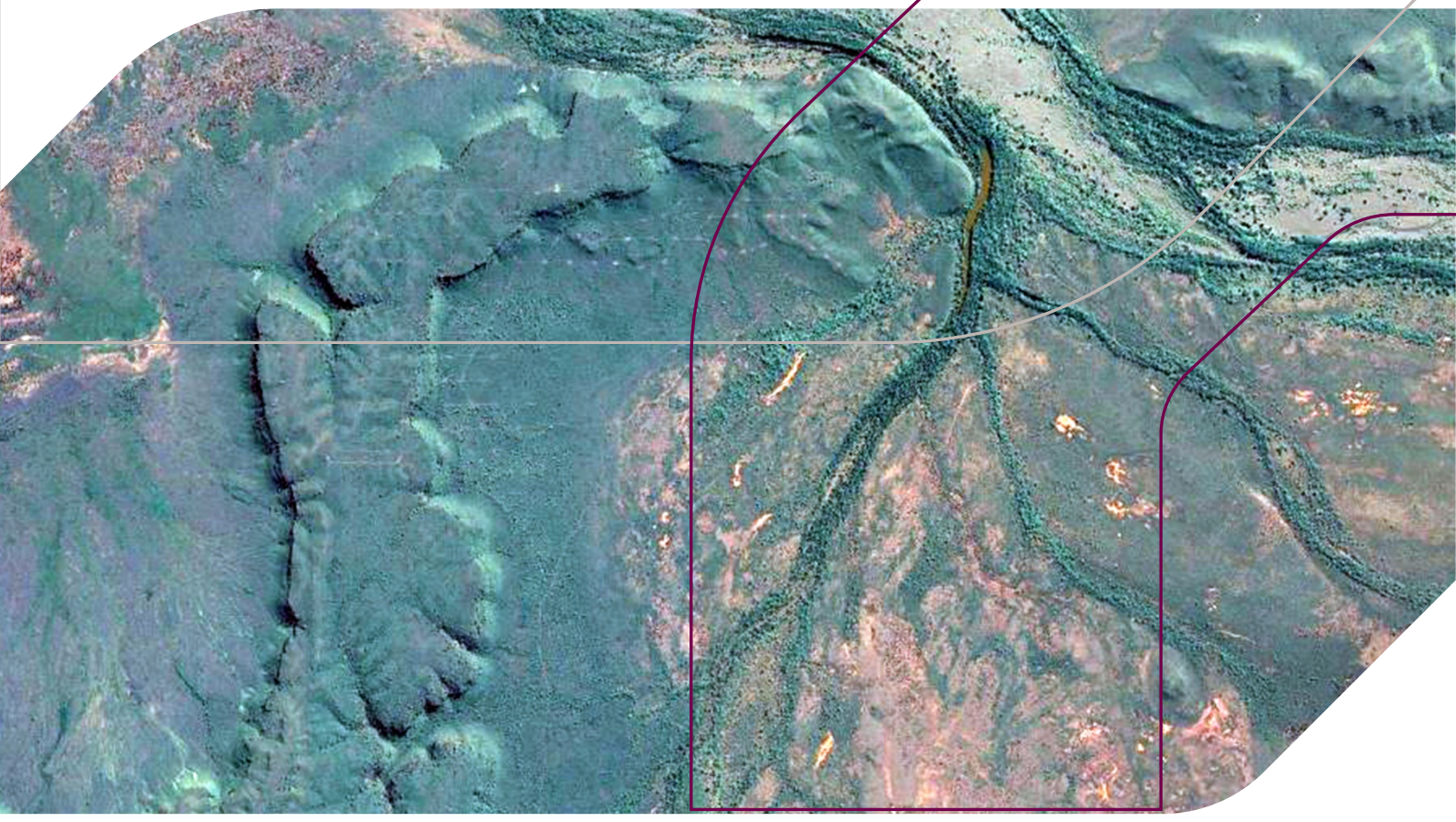
Likelihood of occurrence	Score	Definition
Known	5	Species is known to occur within the survey area
High (likely)	4	Not known to occur within the survey area but there are records within 5 km of the survey area and suitable habitat for the species is known to be, or likely to be, present within the survey area
Moderate (possible)	3 or 2 (if suitable habitat is known to be, or likely to be, present)	Not known to occur within the survey area but there are records within 20 km of the survey area and suitable habitat for the species is known to be, or likely to be, present within the survey area OR Not known to occur within the survey area but there are records on land systems represented within the survey area and suitable habitat for the species is known to be, or likely to be, present within the survey area OR Not known to occur within the survey area but there are records within 20 km of the survey area and on land systems represented within the survey area, and suitable habitat for the species is known to be, or likely to be, present within the survey area
Low (unlikely)	1 (if suitable habitat may be present)	Not known to occur within the survey area but suitable habitat for the species may be present within the survey area
Negligible (suitable habitat not present	0 or 1 (if suitable habitat is absent)	Despite records being present within the 100 km database search area no suitable habitat is present within the survey area therefore the likelihood of the species occurring there is negligible

Table B-2 Risk matrix for analysis of the likelihood that each species of conservation significance would occur within the survey area based on the desktop study (database search) results

Species	Soil and landform	Flowering time	WA Conservation Code	Commonwealth (EPBC Act Listing) Conservation Code	Known records within the survey area	Known records within a 5 km radius of the survey area	Known records within a 20 km radius of the survey area	Known occurrence on land systems represented within the survey area	Potential presence of suitable habitat within the survey area	Total score	Likelihood of occurrence
Goodenia nuda	Hardpan plains, drainage lines. Red clayey loam	Apr-Aug	4	-	0	1	1	1	1	**4**	**High**
Triodia pisoliticola	Crests and slopes of ironstone hills and mesas	Feb-Mar	3	-	0	1	1	1	1	**4**	**High**
Rhynchosia bungarensis	Rocky and stony hillslopes and drainage lines. Brown sandy clay loam over ironstone	-	4	-	0	1	1	1	1	**4**	**High**
Dicladanthera glabra	Alluvium. Along watercourses, near rock pools	Aug-Oct	2	-	0	0	1	1	1	**3**	**Moderate**
Solanum sp. Red Hill (S. van Leeuwen et al. PBS 5415)	Slopes of stony shale hills, ironstone gorges. Skeletal red-brown loam over ironstone	-	3	-	0	0	1	1	1	**3**	**Moderate**
Stylidium weeliwolli	Plains, edge of watercourses. Gritty sand soil, sandy clay	Aug-Sep	3	-	0	0	1	1	1	**3**	**Moderate**
Eragrostis surreyana	Inundated drainage lines and soaks, seepages. Red-brown clay to sandy-clay	-	3	-	0	0	0	1	1	**2**	**Moderate**
Euphorbia australis var. *glabra*	Flats, drainage zones. Red-brown loams, cracking clays	-	3	-	0	0	0	1	1	**2**	**Moderate**
Glycine falcata	Along drainage depressions in crabhole plains on river floodplains. Black clayey sand	May or Jul	3	-	0	0	0	1	1	**2**	**Moderate**
Indigofera sp. Bungaroo Creek (S. van Leeuwen 4301)	Drainage line, floodplain. Red-brown sandy clay loam, sand over ironstone	May-Jul	3	-	0	0	0	1	1	**2**	**Moderate**
Oldenlandia sp. Hamersley Station (A.A. Mitchell PRP 1479)	Drainage depressions, claypans. Red-brown sandy clays and loamy clays	Mar	3	-	0	0	0	1	1	**2**	**Moderate**
Owenia acidula	Plains adjacent to creeks and drainage lines. Silty loam.	-	3	-	0	0	0	1	1	**2**	**Moderate**
Sida sp. Barlee Range (S. van Leeuwen 1642)	Rocky hills, scree slopes, breakaways. Red-brown sandy clay loam over ironstone	Aug	3	-	0	0	0	1	1	**2**	**Moderate**
Sida sp. Hamersley Range (K. Newbey 10692)	Gullies, base of breakaways. Brown loamy sand over ironstone	-	3	-	0	0	0	1	1	**2**	**Moderate**
Terminalia supranitifolia	Stony and rocky basalt hills	May or Jul-Dec	3	-	0	0	0	1	1	**2**	**Moderate**
Triodia basitricha	Flat plains, low rises, stony ironstone hills. Red-brown clay over ironstone	-	3	-	0	0	0	1	1	**2**	**Moderate**
Eremophila magnifica subsp. *magnifica*	Rocky and stony ironstone hills. Skeletal soils over ironstone	Aug-Nov	4	-	0	0	0	1	1	**2**	**Moderate**
Goodenia berringbinensis	Along watercourses. Red sandy loam	Oct	4	-	0	0	0	1	1	**2**	**Moderate**
Livistona alfredii	Edges of permanent pools, creeks and rivers. Stony red loam, limestone, clay	Jul-Sep	4	-	0	0	0	1	1	**2**	**Moderate**
Ptilotus mollis	Stony hills and screes	May or Sep	4	-	0	0	0	1	1	**2**	**Moderate**
Bothriochloa decipiens var. *cloncurrensis*	Seasonally damp depressions. Red-brown loam.	-	1	-	0	0	0	0	1	**1**	**Low**
Goodenia pallida	Red soils	Aug	1	-	0	0	0	0	1	**1**	**Low**
Helichrysum oligochaetum	Alluvial plains. Red clay	Aug-Nov	1	-	0	0	0	0	1	**1**	**Low**
Triodia mallota	Lower slopes of pisolitic mesa	-	1	-	0	0	0	0	1	**1**	**Low**
Oxalis sp. Pilbara (M.E. Trudgen 12725)	Gorges / rocky hillslopes. Clayey loam / sandy loam	-	2	-	0	0	0	0	1	**1**	**Low**
Pentalepis trichodesmoides subsp. *hispida*	Stony hillslopes. Red-brown gravelly loam. Cobbles	-	2	-	0	0	0	0	1	**1**	**Low**
Solanum pycnotrichum	Sandplains, dry drainage lines, ironstone hills. Skeletal sandy clay loams and sandy loams	-	2	-	0	0	0	0	1	**1**	**Low**
Cyanthillium gracile	Rocky slopes and gullies. Ironstone outcropping	-	3	-	0	0	0	0	1	**1**	**Low**
Eragrostis crateriformis	Creek banks. Clayey loam or clay	Jan-May or Jul	3	-	0	0	0	0	1	**1**	**Low**
Solanum albostellatum	Alluvial plains, floodplains. Cracking clays, red-brown clays. Ironstone rocks and pebbles	-	3	-	0	0	0	0	1	**1**	**Low**
Solanum kentrocaule	Steep gullies and slopes of ironstone hills. Red-brown skeletal loam	-	3	-	0	0	0	0	1	**1**	**Low**
Euphorbia inappendiculata var. *inappendiculata*	Claypans / flats. Red-brown loams and sandy-clay	-	2	-	0	0	0	1	0	**1**	**Negligible**
Themeda sp. Hamersley Station (M.E. Trudgen 11431)	Claypans, plains. Red clay	Aug	3	-	0	0	0	1	0	**1**	**Negligible**
Abutilon sp. Onslow (F. Smith s.n. 10/9/61)	Undulating plains / low rises. Red loamy-sand	Aug or Oct	1	-	0	0	0	0	0	**0**	**Negligible**
Minuria tridens	Roadsides	Sep	1	-	0	0	0	0	0	**0**	**Negligible**
Triodia sp. Silvergrass (P.L. de Kock BES 00808)	Stony hillslopes. Light clay / clay loam	-	1	-	0	0	0	0	0	**0**	**Negligible**
Paspalidium retiglume	Clay flats. Red-brown cracking clay	Apr	2	-	0	0	0	0	0	**0**	**Negligible**
Trianthema sp. Python Pool (G.R. Guerin & M.E. Trudgen GG 1023)	Low hills, plains. Brown clayey sand and clay-loam. Cobbles and pebbles	-	2	-	0	0	0	0	0	**0**	**Negligible**
Abutilon sp. Pritzelianum (S. van Leeuwen 5095)	Sandplains. Red-brown sand, silty sand	-	3	-	0	0	0	0	0	**0**	**Negligible**
Corchorus congener	Sand dunes, plains. Sand, red sandy loam with limestone	Apr-Jun or Aug-Nov	3	-	0	0	0	0	0	**0**	**Negligible**
Eleocharis papillosa	Claypans, clay flats. Red clay over granite	Nov	3	-	0	0	0	0	0	**0**	**Negligible**
Eremophila forrestii subsp. *viridis*	Red sand dunes and swales over hardpan. Red- brown sandy loam and sands	Aug	3	-	0	0	0	0	0	**0**	**Negligible**
Euphorbia stevenii	Bedrock with colluvium. Clay	-	3	-	0	0	0	0	0	**0**	**Negligible**
Fimbristylis sieberiana	Pool edges, sandstone cliffs. Mud, skeletal soil pockets	May-Jun	3	-	0	0	0	0	0	**0**	**Negligible**
Gymnanthera cunninghamii	Flats. Sandy soils	Jan-Dec	3	-	0	0	0	0	0	**0**	**Negligible**
Stackhousia clementii	Sandstone hills, coastal plains. Skeletal soils	-	3	-	0	0	0	0	0	**0**	**Negligible**
Swainsona thompsoniana	Floodplains. Cracking clays, red-brown clay loams	Apr-Aug	3	-	0	0	0	0	0	**0**	**Negligible**
Triumfetta echinata	Sand dunes. Red sandy soils	Aug	3	-	0	0	0	1	0	**0**	**Negligible**
Acacia bromilowiana	Rocky hills, breakaways, scree slopes, gorges, creek beds. Red skeletal stony loam	Jul-Aug	4	-	0	0	0	0	0	**0**	**Negligible**

(Source: DBCA NatureMap and FloraBase, and Main Roads supplied database searches from DBCA's Species & Communities Branch (Threatened and Priority Flora)

Appendix C
Flora inventory



APPENDIX C: FLORA INVENTORY

Family	Weed	Taxon
AIZOACEAE		*Trianthema oxycalyptrum* var. *oxycalyptrum*
AIZOACEAE		*Trianthema pilosa*
AIZOACEAE		*Trianthema triquetra*
AMARANTHACEAE	*	*Aerva javanica*
AMARANTHACEAE		*Alternanthera nana*
AMARANTHACEAE		*Alternanthera nodiflora*
AMARANTHACEAE		*Amaranthus cuspidifolius*
AMARANTHACEAE		*Amaranthus* sp.
AMARANTHACEAE		*Amaranthus undulatus*
AMARANTHACEAE		*Gomphrena affinis*
AMARANTHACEAE		*Gomphrena cunninghamii*
AMARANTHACEAE		*Ptilotus aervoides*
AMARANTHACEAE		*Ptilotus appendiculatus*
AMARANTHACEAE		*Ptilotus arthrolasius*
AMARANTHACEAE		*Ptilotus astrolasius*
AMARANTHACEAE		*Ptilotus auriculifolius*
AMARANTHACEAE		*Ptilotus axillaris*
AMARANTHACEAE		*Ptilotus calostachyus*
AMARANTHACEAE		*Ptilotus chamaecladus*
AMARANTHACEAE		*Ptilotus clementii*
AMARANTHACEAE		*Ptilotus exaltatus*
AMARANTHACEAE		*Ptilotus fusiformis*
AMARANTHACEAE		*Ptilotus gomphrenoides*
AMARANTHACEAE		*Ptilotus incanus*
AMARANTHACEAE		*Ptilotus obovatus*
AMARANTHACEAE		*Ptilotus polystachyus*
APOCYNACEAE		*Cynanchum floribundum*
ARALIACEAE		*Trachymene oleracea*
ARALIACEAE		*Trachymene pilbarensis*
ASTERACEAE		*Blumea tenella*
ASTERACEAE		*Calocephalus beardii*
ASTERACEAE		*Calocephalus knappii*
ASTERACEAE		*Calotis plumulifera*
ASTERACEAE		*Centipeda minima*
ASTERACEAE		*Centipeda minima* subsp. *macrocephala*
ASTERACEAE		*Centipeda minima* subsp. *minima*
ASTERACEAE		*Flaveria trinervia*
ASTERACEAE		*Myriocephalus* sp.
ASTERACEAE		*Pluchea ? tetranthera*
ASTERACEAE		*Pluchea dentex*
ASTERACEAE		*Pluchea dunlopii*
ASTERACEAE		*Pluchea ferdinandi-muelleri*
ASTERACEAE		*Pluchea rubelliflora*
ASTERACEAE	*	*Pseudognaphalium luteoalbum*
ASTERACEAE		*Pterocaulon serrulatum* var. *velutinum*
ASTERACEAE		*Pterocaulon sphacelatum*
ASTERACEAE		*Rhodanthe margarethae*
ASTERACEAE		*Streptoglossa ? bubakii*
ASTERACEAE		*Streptoglossa ? tenuiflora*
ASTERACEAE		*Streptoglossa bubakii*
ASTERACEAE		*Streptoglossa decurrens*
ASTERACEAE		*Streptoglossa odora*
ASTERACEAE		*Streptoglossa* sp.
BORAGINACEAE		*Ehretia saligna*
BORAGINACEAE		*Heliotropium crispatum*
BORAGINACEAE		*Heliotropium heteranthum*
BORAGINACEAE		*Trichodesma zeylanicum* var. *zeylanicum*

Family	Weed	Taxon
BRASSICACEAE		*Lepidium pholidogynum*
CAMPANULACEAE		*Wahlenbergia tumidifructa*
CAPPARACEAE		*Capparis spinosa*
CARYOPHYLLACEAE		*Polycarpaea corymbosa*
CARYOPHYLLACEAE		*Polycarpaea holtzei*
CARYOPHYLLACEAE		*Polycarpaea longiflora*
CHENOPODIACEAE		*Dysphania glomulifera*
CHENOPODIACEAE		*Dysphania glomulifera* subsp. *eremaea*
CHENOPODIACEAE		*Dysphania kalpari*
CHENOPODIACEAE		*Dysphania melanocarpa forma melanocarpa*
CHENOPODIACEAE		*Dysphania rhadinostachya*
CHENOPODIACEAE		*Dysphania rhadinostachya* subsp. *inflata*
CHENOPODIACEAE		*Dysphania rhadinostachya* subsp. *rhadinostachya*
CHENOPODIACEAE		*Enchylaena tomentosa*
CHENOPODIACEAE		*Maireana melanocoma*
CHENOPODIACEAE		*Maireana planifolia*
CHENOPODIACEAE		*Rhagodia eremaea*
CHENOPODIACEAE		*Salsola australis*
CHENOPODIACEAE		*Sclerolaena costata*
CHENOPODIACEAE		*Sclerolaena densiflora*
CLEOMACEAE		*Arivela viscosa*
CONVOLVULACEAE		*Bonamia erecta*
CONVOLVULACEAE		*Bonamia linearis*
CONVOLVULACEAE		*Bonamia pannosa*
CONVOLVULACEAE		*Bonamia pilbarensis*
CONVOLVULACEAE		*Convolvulus clementii*
CONVOLVULACEAE		*Duperreya commixta*
CONVOLVULACEAE		*Evolvulus alsinoides* var. *decumbens*
CONVOLVULACEAE		*Evolvulus alsinoides* var. *villosicalyx*
CONVOLVULACEAE		*Ipomoea ? plebeia*
CONVOLVULACEAE		*Ipomoea coptica*
CONVOLVULACEAE		*Ipomoea muelleri*
CONVOLVULACEAE		*Ipomoea polymorpha*
CONVOLVULACEAE		*Ipomoea* sp.
CONVOLVULACEAE		*Polymeria ambigua*
CUCURBITACEAE		*Cucumis variabilis*
CYPERACEAE		*Bulbostylis barbata*
CYPERACEAE		*Bulbostylis turbinata*
CYPERACEAE		*Cyperus cunninghamii* subsp. *cunninghamii*
CYPERACEAE		*Cyperus difformis*
CYPERACEAE		*Cyperus iria*
CYPERACEAE		*Cyperus leptocarpus*
CYPERACEAE		*Cyperus pulchellus*
CYPERACEAE		*Cyperus squarrosus*
CYPERACEAE		*Cyperus vaginatus*
CYPERACEAE		*Eleocharis atropurpurea*
CYPERACEAE		*Fimbristylis ? dichotoma*
CYPERACEAE		*Fimbristylis dichotoma*
CYPERACEAE		*Fimbristylis elegans*
CYPERACEAE		*Schoenoplectus laevis*
ELATINACEAE		*Bergia ? henshallii*
ELATINACEAE		*Bergia pedicellaris*
ELATINACEAE		*Bergia trimera*
EUPHORBIACEAE		*Euphorbia biconvexa*
EUPHORBIACEAE		*Euphorbia boophthona*
EUPHORBIACEAE		*Euphorbia careyi*
EUPHORBIACEAE	*	*Euphorbia hirta*
EUPHORBIACEAE		*Euphorbia tannensis* subsp. *eremophila*
EUPHORBIACEAE		*Euphorbia trigonosperma*
EUPHORBIACEAE		*Euphorbia vaccaria* var. *vaccaria*

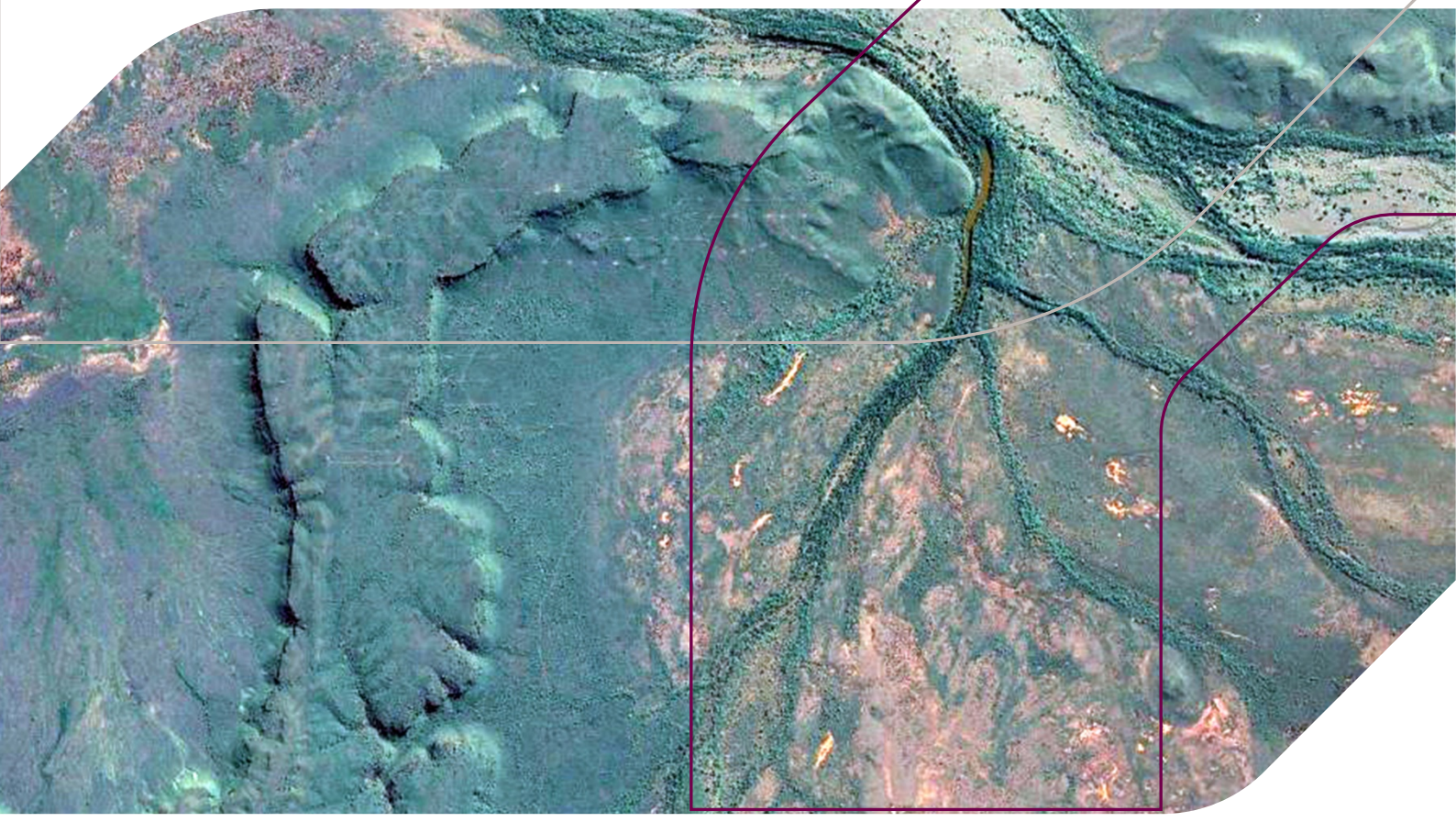
Family	Weed	Taxon
FABACEAE		*Acacia ? sericophylla*
FABACEAE		*Acacia acradenia*
FABACEAE		*Acacia ancistrocarpa*
FABACEAE		*Acacia arida*
FABACEAE		*Acacia atkinsiana*
FABACEAE		*Acacia bivenosa*
FABACEAE		*Acacia citrinoviridis*
FABACEAE		*Acacia colei* var. *colei*
FABACEAE		*Acacia elachantha*
FABACEAE		*Acacia inaequilatera*
FABACEAE		*Acacia ligulata*
FABACEAE		*Acacia pyrifolia* var. *pyrifolia*
FABACEAE		*Acacia sclerosperma* subsp. *sclerosperma*
FABACEAE		*Acacia* sp.
FABACEAE		*Acacia synchronicia*
FABACEAE		*Acacia trachycarpa*
FABACEAE		*Acacia trachycarpa x tumida* var. *pilbarensis*
FABACEAE		*Acacia tumida* var. *pilbarensis*
FABACEAE		*Acacia tumida* var. *pilbarensis*
FABACEAE		*Acacia wanyu*
FABACEAE		*Acacia xiphophylla*
FABACEAE		*Alysicarpus muelleri*
FABACEAE		*Crotalaria medicaginea*
FABACEAE		*Cullen leucanthum*
FABACEAE		*Cullen leucochaites*
FABACEAE		*Cullen martinii*
FABACEAE		*Cullen pogonocarpum*
FABACEAE		*Indigofera boviperda*
FABACEAE		*Indigofera boviperda* subsp. *boviperda*
FABACEAE		*Indigofera chamaeclada* subsp. *pubens*
FABACEAE		*Indigofera colutea*
FABACEAE		*Indigofera linifolia*
FABACEAE		*Indigofera linnaei*
FABACEAE		*Indigofera monophylla*
FABACEAE		*Isotropis atropurpurea*
FABACEAE		*Lotus cruentus*
FABACEAE		*Neptunia dimorphantha*
FABACEAE		*Petalostylis labicheoides*
FABACEAE		*Rhynchosia minima*
FABACEAE		*Senna artemisioides* subsp. *helmsii*
FABACEAE		*Senna artemisioides* subsp. *oligophylla*
FABACEAE		*Senna artemisioides* subsp. *oligophylla x helmsii*
FABACEAE		*Senna glutinosa* subsp. *glutinosa*
FABACEAE		*Senna glutinosa* subsp. *pruinosa*
FABACEAE		*Senna glutinosa* subsp. *x luerssenii*
FABACEAE		*Senna notabilis*
FABACEAE		*Senna venusta*
FABACEAE		*Sesbania cannabina*
FABACEAE		*Swainsona formosa*
FABACEAE		*Tephrosia* aff. *remotiflora* 'Peedamulla form'
FABACEAE		*Tephrosia rosea*
FABACEAE		*Tephrosia rosea* var. Fortescue creeks
FABACEAE		*Tephrosia* sp. B Kimberley Flora (C.A. Gardner 7300)
FABACEAE		*Tephrosia* sp. NW Eremaean (S. van Leeuwen et al. PBS 0356)
FABACEAE		*Tephrosia supina*
FABACEAE		*Tephrosia uniovulata*
FABACEAE		*Vachellia farnesiana*
FABACEAE		*Vigna lanceolata* var. *lanceolata*
GENTIANACEAE		*Centaurium* sp.
GENTIANACEAE		*Schenkia australis*

Family	Weed	Taxon
GOODENIACEAE		*Goodenia forrestii*
GOODENIACEAE		*Goodenia lamprosperma*
GOODENIACEAE		*Goodenia microptera*
GOODENIACEAE		*Goodenia nuda*
GOODENIACEAE		*Goodenia tenuiloba sens. lat.*
GOODENIACEAE		*Scaevola parvifolia* subsp. *pilbarae*
GOODENIACEAE		*Scaevola spinescens*
GYROSTEMONACEAE		*Codonocarpus cotinifolius*
HALORAGACEAE		*Haloragis gossei*
LAMIACEAE		*Clerodendrum floribundum*
LAURACEAE		*Cassytha capillaris*
LORANTHACEAE		*Amyema miquelii*
LORANTHACEAE		*Amyema preissii*
LYTHRACEAE		*Ammannia baccifera*
LYTHRACEAE		*Ammannia multiflora*
LYTHRACEAE		*Rotala diandra*
LYTHRACEAE		*Rotala mexicana*
MALVACEAE		*Abutilon ?* sp. Dioicum (A.A. Mitchell PRP 1618)
MALVACEAE		*Abutilon* aff. *fraseri*
MALVACEAE		*Abutilon* aff. *hannii*
MALVACEAE		*Abutilon amplum*
MALVACEAE		*Abutilon cunninghamii*
MALVACEAE		*Abutilon fraseri* subsp. *fraseri*
MALVACEAE		*Abutilon lepidum*
MALVACEAE		*Abutilon macrum*
MALVACEAE		*Abutilon malvifolium*
MALVACEAE		*Abutilon otocarpum*
MALVACEAE		*Abutilon* sp.
MALVACEAE		*Abutilon* sp. Dioicum (A.A. Mitchell PRP 1618)
MALVACEAE		*Abutilon* sp. Pilbara (W.R. Barker 2025)
MALVACEAE		*Corchorus lasiocarpus*
MALVACEAE		*Corchorus sidoides* subsp. *sidoides*
MALVACEAE		*Corchorus* sp.
MALVACEAE		*Corchorus tectus*
MALVACEAE		*Corchorus tridens*
MALVACEAE		*Gossypium australe*
MALVACEAE		*Gossypium robinsonii*
MALVACEAE		*Hibiscus ? sturtii*
MALVACEAE		*Hibiscus brachychlaenus*
MALVACEAE		*Hibiscus burtonii*
MALVACEAE		*Hibiscus coatesii*
MALVACEAE		*Hibiscus goldsworthii*
MALVACEAE		*Hibiscus leptocladus*
MALVACEAE		*Hibiscus sturtii*
MALVACEAE		*Hibiscus sturtii ?* var. *campylochlamys*
MALVACEAE		*Hibiscus sturtii* var. *campylochlamys*
MALVACEAE		*Hibiscus sturtii* var. *platychlamys*
MALVACEAE	*	*Malvastrum americanum*
MALVACEAE		*Melhania oblongifolia*
MALVACEAE		*Seringia nephrosperma*
MALVACEAE		*Sida aff fibulifera*
MALVACEAE		*Sida arenicola*
MALVACEAE		*Sida arsiniata*
MALVACEAE		*Sida cardiophylla*
MALVACEAE		*Sida clementii*
MALVACEAE		*Sida echinocarpa*
MALVACEAE		*Sida fibulifera*
MALVACEAE		*Sida platycalyx*
MALVACEAE		*Sida rohlenae* subsp. *rohlenae*
MALVACEAE		*Sida* sp.

Family	Weed	Taxon
MALVACEAE		*Sida* sp. L (A.M. Ashby 4202)
MALVACEAE		*Sida* sp. Pilbara (A.A. Mitchell PRP 1543)
MALVACEAE		*Sida* sp. spiciform panicles (E. Leyland s.n. 14/8/90)
MALVACEAE		*Triumfetta chaetocarpa*
MALVACEAE		*Triumfetta clementii*
MALVACEAE		*Triumfetta johnstonii*
MALVACEAE		*Waltheria indica*
MARSILEACEAE		*Marsilea costulifera*
MARSILEACEAE		*Marsilea drummondii*
MARSILEACEAE		*Marsilea hirsuta*
MENISPERMACEAE		*Tinospora smilacina*
MOLLUGINACEAE		*Trigastrotheca molluginea*
MORACEAE		*Ficus brachypoda*
MORACEAE		*Ficus platypoda*
MYRTACEAE		*Corymbia candida* subsp. *candida*
MYRTACEAE		*Corymbia deserticola* subsp. *deserticola*
MYRTACEAE		*Corymbia hamersleyana*
MYRTACEAE		*Eucalyptus camaldulensis* subsp. *refulgens*
MYRTACEAE		*Eucalyptus leucophloia*
MYRTACEAE		*Eucalyptus victrix*
MYRTACEAE		*Melaleuca argentea*
MYRTACEAE		*Melaleuca glomerata*
NYCTAGINACEAE		*Boerhavia coccinea*
NYCTAGINACEAE		*Boerhavia repleta*
NYCTAGINACEAE		*Boerhavia* sp.
OLEACEAE		*Jasminum didymum* subsp. *lineare*
OROBANCHACEAE		*Striga curviflora*
PASSIFLORACEAE	*	*Passiflora foetida* var. *hispida*
PHRYMACEAE		*Mimulus gracilis*
PHRYMACEAE		*Peplidium muelleri*
PHYLLANTHACEAE		*Notoleptopus decaisnei*
PHYLLANTHACEAE		*Phyllanthus erwinii*
PHYLLANTHACEAE		*Phyllanthus maderaspatensis*
PHYLLANTHACEAE		*Phyllanthus* sp.
PLANTAGINACEAE		*Stemodia grossa*
POACEAE		*Aristida holathera* var. *holathera*
POACEAE		*Aristida pruinosa*
POACEAE	*	*Cenchrus ciliaris*
POACEAE	*	*Cenchrus setiger*
POACEAE		*Chloris pectinata*
POACEAE		*Chrysopogon fallax*
POACEAE		*Cymbopogon ambiguus*
POACEAE		*Cymbopogon obtectus*
POACEAE		*Cymbopogon* sp.
POACEAE		*Cynodon convergens*
POACEAE	*	*Cynodon dactylon*
POACEAE		*Cynodon prostratus*
POACEAE		*Dactyloctenium radulans*
POACEAE		*Dichanthium sericeum* subsp. *humilius*
POACEAE		*Digitaria ctenantha*
POACEAE		*Diplachne fusca* subsp. *muelleri*
POACEAE	*	*Echinochloa colona*
POACEAE		*Eragrostis crateriformis*
POACEAE		*Eragrostis cumingii*
POACEAE		*Eragrostis dielsii*
POACEAE		*Eragrostis eriopoda*
POACEAE		*Eragrostis leptocarpa*
POACEAE		*Eragrostis tenellula*
POACEAE		*Eriachne ? benthamii*
POACEAE		*Eriachne aristidea*

Family	Weed	Taxon
POACEAE		*Eriachne benthamii*
POACEAE		*Eriachne flaccida*
POACEAE		*Eriachne helmsii*
POACEAE		*Eriachne mucronata*
POACEAE		*Eriachne pulchella*
POACEAE		*Eriachne pulchella* subsp. *dominii*
POACEAE		*Eriachne tenuiculmis*
POACEAE		*Eulalia aurea*
POACEAE		*Iseilema dolichotrichum*
POACEAE		*Iseilema membranaceum*
POACEAE		*Paraneurachne muelleri*
POACEAE		*Paspalidium ? clementii*
POACEAE		*Paspalidium clementii*
POACEAE		*Paspalidium rarum*
POACEAE		*Perotis rara*
POACEAE		*Setaria dielsii*
POACEAE	*	*Setaria verticillata*
POACEAE		*Sporobolus australasicus*
POACEAE		*Themeda triandra*
POACEAE		*Triodia epactia*
POACEAE		*Triodia pisoliticola*
POACEAE		*Triodia wiseana*
POACEAE		*Urochloa occidentalis* var. *occidentalis*
POLYGALACEAE		*Polygala glaucifolia*
PORTULACACEAE		*Calandrinia ptychosperma*
PORTULACACEAE		*Portulaca cyclophylla*
PORTULACACEAE		*Portulaca oleracea*
PROTEACEAE		*Grevillea pyramidalis*
PROTEACEAE		*Grevillea wickhamii* subsp. *hispidula*
PROTEACEAE		*Hakea lorea* subsp. *lorea*
PTERIDACEAE		*Cheilanthes sieberi* subsp. *sieberi*
RUBIACEAE		*Dolichocarpa crouchiana*
RUBIACEAE		*Scleromitrion galioides*
RUBIACEAE		*Synaptantha tillaeacea* var. *tillaeacea*
SAPINDACEAE		*Dodonaea coriacea*
SCROPHULARIACEAE		*Eremophila forrestii* subsp. *forrestii*
SCROPHULARIACEAE		*Eremophila longifolia*
SOLANACEAE	*	*Datura leichhardtii* subsp. *leichhardtii*
SOLANACEAE		*Nicotiana benthamiana*
SOLANACEAE		*Nicotiana* sp.
SOLANACEAE		*Solanum cleistogamum*
SOLANACEAE		*Solanum diversiflorum*
SOLANACEAE		*Solanum ellipticum*
SOLANACEAE		*Solanum horridum*
STYLIDIACEAE		*Stylidium spathulatum*
SURIANACEAE		*Stylobasium spathulatum*
VIOLACEAE		*Afrohybanthus aurantiacus*
VIOLACEAE		*Hybanthus aurantiacus*
ZYGOPHYLLACEAE		*Tribulopis angustifolia*
ZYGOPHYLLACEAE		*Tribulus ? occidentalis*
ZYGOPHYLLACEAE		*Tribulus astrocarpus*
ZYGOPHYLLACEAE		*Tribulus hirsutus*
ZYGOPHYLLACEAE		*Tribulus macrocarpus*
ZYGOPHYLLACEAE		*Tribulus occidentalis*
ZYGOPHYLLACEAE		*Tribulus platypterus*
ZYGOPHYLLACEAE		*Tribulus suberosus*
ZYGOPHYLLACEAE		*Tribulus terrestris*

Appendix D
Species by site



APPENDIX D: SPECIES BY SITE

Taxon	RMQ01	RMQ02	RMQ03	RMQ04	RMQ05	RMQ06	RMQ07	RMQ08	RMQ09	RMQ10	RMQ11	RMQ12	RMQ13	RMQ14	RMQ15	RMQ16	RMQ17	RMQ18	RMQ19	RMQ20	RMQ21	RMQ22	RMQ23	RMQ24	RMQ25	RMQ26	RMQ27	RMQ28	RMQ29	RMQ30	RMQ31	RMQ32	RMQ33	RMQ34	RMQ35	RMQ36	RMQ37	RMQ38	RMQ39	RMQ40	RMQ41	RMQ42	RMQ43	RMQ44	RMQ45	RMQ46	RMQ47	RMQ48	RMQ49	RMQ50	RMRCG01	RMRKM01	RMRKM10	RMRKM11
Abutilon ? sp. Dioicum (A.A. Mitchell PRP 1618)																																																	x					
Abutilon aff. *fraseri*																										x								x																					
Abutilon aff. *hannii*																									x																												
Abutilon amplum																																								x													
Abutilon cunninghamii											x			x				x																x							x												
Abutilon fraseri subsp. *fraseri*																													x																								
Abutilon lepidum			x										x		x		x	x		x			x	x		x		x		x	x		x	x					x	x			x											
Abutilon macrum														x																									x														
Abutilon malvifolium																																									x												
Abutilon otocarpum				x	x									x					x				x			x	x	x						x	x				x		x			x	x										
Abutilon sp.																														x																						x		
Abutilon sp. Dioicum (A.A. Mitchell PRP 1618)																																				x										x			x					
Abutilon sp. Pilbara (W.R. Barker 2025)	x			x				x	x	x				x	x		x	x	x	x	x	x	x	x		x	x	x		x				x	x	x	x	x	x	x		x			x		x								
Acacia ? sericophylla																																																						
Acacia acradenia			x																																																		
Acacia ancistrocarpa				x					x	x				x	x		x	x		x	x		x		x				x	x		x	x			x		x					x						x					
Acacia arida	x	x	x	x		x					x	x	x																	x				x		x		x											x	x	x	x		x
Acacia atkinsiana	x									x				x	x		x	x		x	x	x	x	x						x			x		x		x		x	x				x	x		x									
Acacia bivenosa			x	x					x	x		x		x	x		x	x								x				x			x		x		x	x	x	x				x											x
Acacia citrinoviridis																													x					x														x	x			x		
Acacia colei var. *colei*														x										x		x					x								x			x											x	
Acacia elachantha									x																						x																							
Acacia inaequilatera				x				x		x				x			x			x	x	x	x						x	x			x	x		x							x				x	x	x				
Acacia ligulata																													x					x																			
Acacia pyrifolia var. *pyrifolia*														x										x		x							x					x	x	x		x						x				x	
Acacia sclerosperma subsp. *sclerosperma*																					x					x	x	x	x	x		x									x			x			x		x					
Acacia sp.																					x																																
Acacia synchronicia				x				x	x	x				x		x		x	x	x	x	x	x	x	x	x		x	x	x	x	x			x						x	x	x		x		x		x					x	
Acacia trachycarpa				x	x																				x		x	x	x			x		x		x			x	x	x		x	x				x	x					x	
Acacia trachycarpa x tumida var. *pilbarensis*																																							x				x										
Acacia tumida var. *pilbarensis*								x						x																				x		x			x				x								x	x		x
Acacia wanyu									x																																												
Acacia xiphophylla																x			x					x		x		x							x										x	x								
Aerva javanica																			x																																		
Afrohybanthus aurantiacus	x													x										x		x		x					x					x		x			x				x	x				x	
Alternanthera nana																		x			x				x		x		x		x	x		x				x	x	x		x	x											
Alternanthera nodiflora														x												x					x						x	x														x	
Alysicarpus muelleri																													x																								
Amaranthus cuspidifolius										x				x		x		x	x	x	x					x		x							x				x					x			x						x		
Amaranthus sp.																																																			x			

Taxon	RMQ01	RMQ02	RMQ03	RMQ04	RMQ05	RMQ06	RMQ07	RMQ08	RMQ09	RMQ10	RMQ11	RMQ12	RMQ13	RMQ14	RMQ15	RMQ16	RMQ17	RMQ18	RMQ19	RMQ20	RMQ21	RMQ22	RMQ23	RMQ24	RMQ25	RMQ26	RMQ27	RMQ28	RMQ29	RMQ30	RMQ31	RMQ32	RMQ33	RMQ34	RMQ35	RMQ36	RMQ37	RMQ38	RMQ39	RMQ40	RMQ41	RMQ42	RMQ43	RMQ44	RMQ45	RMQ46	RMQ47	RMQ48	RMQ49	RMQ50	RMRCG01	RMRKM01	RMRKM10	RMRKM11
Amaranthus undulatus			x				x																		x										x												x				
Ammannia baccifera																																							x														
Ammannia multiflora																											x					x																			x		
Amyema miquelii																																												x									
Amyema preissii																		x																																				
Aristida holathera var. *holathera*		x		x	x				x								x			x									x				x															x				
Aristida pruinosa																											x																										
Arivela viscosa	x			x	x			x	x	x		x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x			x	x	x		x	x	x	
Bergia ? henshallii																																x							x														
Bergia pedicellaris																																x							x														x	
Bergia trimera																																																						x	
Blumea tenella																									x		x					x								x	x			x										x	
Boerhavia coccinea				x	x										x		x	x		x	x				x	x			x					x		x					x	x			x						x			
Boerhavia repleta														x													x	x	x						x											x								
Boerhavia sp.																															x																	x	x						
Bonamia erecta				x	x																x		x							x				x																				
Bonamia linearis					x			x																						x																								
Bonamia pannosa		x			x			x		x				x	x		x	x			x		x							x			x	x				x					x	x	x							
Bonamia pilbarensis	x						x										x			x		x	x		x								x	x												x	x				x			
Bulbostylis barbata							x	x		x				x	x			x	x	x		x			x	x	x	x	x	x	x	x	x	x						x	x	x	x	x	x		x	x	x	x		x		
Bulbostylis turbinata																										x					x	x												x									
Calandrinia ptychosperma														x						x		x			x		x	x	x		x	x		x	x				x				x	x	x		x						
Calocephalus beardii																																																						
Calocephalus knappii														x															x											x														
Calotis plumulifera																										x		x																										
Capparis spinosa																																																						
Cassytha capillaris																																			x																		
Cenchrus ciliaris																									x	x	x	x	x			x		x						x	x	x			x			x		x				x	
Cenchrus setiger														x							x				x	x	x	x	x					x						x	x	x			x					x					
Centaurium sp.																																								x														
Centipeda minima																																																					x	
Centipeda minima subsp. *macrocephala*																									x		x					x	x							x	x												
Centipeda minima subsp. *minima*																																																			x			
Cheilanthes sieberi subsp. *sieberi*																		x																																				
Chenopodiaceae sp.																			x				x																																
Chloris pectinata																									x		x		x			x																						
Chrysopogon fallax																					x				x		x					x																			x			
Clerodendrum floribundum																																																					x		
Codonocarpus cotinifolius																							x																															
Convolvulus clementii																													x																									
Corchorus lasiocarpus																										x																												
Corchorus sidoides subsp. *sidoides*				x	x			x	x													x					x				x	x		x																	x				x			

Taxon	RMQ01	RMQ02	RMQ03	RMQ04	RMQ05	RMQ06	RMQ07	RMQ08	RMQ09	RMQ10	RMQ11	RMQ12	RMQ13	RMQ14	RMQ15	RMQ16	RMQ17	RMQ18	RMQ19	RMQ20	RMQ21	RMQ22	RMQ23	RMQ24	RMQ25	RMQ26	RMQ27	RMQ28	RMQ29	RMQ30	RMQ31	RMQ32	RMQ33	RMQ34	RMQ35	RMQ36	RMQ37	RMQ38	RMQ39	RMQ40	RMQ41	RMQ42	RMQ43	RMQ44	RMQ45	RMQ46	RMQ47	RMQ48	RMQ49	RMQ50	RMRCG01	RMRKM01	RMRKM10	RMRKM11
Corchorus sp.							x	x																																												
Corchorus tectus	x	x	x	x		x	x		x	x	x	x	x	x	x		x	x	x	x	x	x	x	x	x		x	x	x	x			x		x	x	x	x	x	x	x		x	x	x	x				
Corchorus tridens	x													x											x	x	x	x	x		x			x						x			x								x	
Corymbia candida subsp. *candida*				x										x							x						x	x	x			x			x						x										
Corymbia deserticola subsp. *deserticola*																																																					
Corymbia hamersleyana				x	x			x	x	x				x														x		x				x		x				x		x	x			x	x				
Crotalaria medicaginea																											x							x				x	x								x				x	
Cucumis variabilis				x	x			x	x	x						x		x							x		x		x	x			x	x		x										x			x		
Cullen leucanthum																																																					
Cullen leucochaites																																						x																
Cullen martinii				x				x																						x					x	x			x				x									
Cullen pogonocarpum									x									x												x		x										x					x					
Cymbopogon ambiguus																									x		x		x					x		x							x							x		x		x
Cymbopogon obtectus																		x	x																									x										
Cymbopogon sp.																																																				x			
Cynanchum floribundum					x																																																	
Cynodon convergens																											x					x																						
Cynodon dactylon														x																																								
Cynodon prostratus														x		x			x			x		x	x	x					x							x								x	x	x					
Cyperus cunninghamii subsp. *cunninghamii*																																																		x			
Cyperus difformis																											x				x								x												x	
Cyperus iria																															x	x												x		x						
Cyperus leptocarpus																																																					x	
Cyperus pulchellus																																x																						
Cyperus squarrosus																																x			x													x					
Cyperus vaginatus																									x		x												x												x	
Dactyloctenium radulans										x															x	x	x	x			x	x			x					x	x		x	x		x						
Datura leichhardtii subsp. *leichhardtii*																									x																												
Dichanthium sericeum subsp. *humilius*																											x		x																				x				
Digitaria ctenantha																										x	x	x				x		x														x				
Diplachne fusca subsp. *muelleri*																																																						
Dodonaea coriacea	x			x			x																																															
Dolichocarpa crouchiana			x					x	x	x										x		x												x														x					
Duperreya commixta																									x				x					x																			
Dysphania glomulifera																																						x																
Dysphania glomulifera subsp. *eremaea*														x																												x											
Dysphania kalpari	x									x								x	x	x	x		x	x		x							x		x																	
Dysphania melanocarpa forma melanocarpa																											x	x	x					x																		
Dysphania rhadinostachya																				x		x														x	x		x		x	x		x	x	x				x	x	x		x
Dysphania rhadinostachya subsp. *inflata*	x		x				x		x			x		x		x	x						x				x	x	x						x																		
Dysphania rhadinostachya subsp. *rhadinostachya*		x				x		x		x	x		x		x			x	x		x			x	x	x			x		x		x	x				x														
Echinochloa colona																																						x																

Taxon	RMQ01	RMQ02	RMQ03	RMQ04	RMQ05	RMQ06	RMQ07	RMQ08	RMQ09	RMQ10	RMQ11	RMQ12	RMQ13	RMQ14	RMQ15	RMQ16	RMQ17	RMQ18	RMQ19	RMQ20	RMQ21	RMQ22	RMQ23	RMQ24	RMQ25	RMQ26	RMQ27	RMQ28	RMQ29	RMQ30	RMQ31	RMQ32	RMQ33	RMQ34	RMQ35	RMQ36	RMQ37	RMQ38	RMQ39	RMQ40	RMQ41	RMQ42	RMQ43	RMQ44	RMQ45	RMQ46	RMQ47	RMQ48	RMQ49	RMQ50	RMRCG01	RMRKM01	RMRKM10	RMRKM11
Ehretia saligna																																																					
Eleocharis atropurpurea																																						x															x	
Enchylaena tomentosa																			x					x		x																				x							
Eragrostis crateriformis																				x											x	x			x									x	x		x						
Eragrostis cumingii														x												x	x		x		x	x		x	x				x	x				x							x	
Eragrostis dielsii		x								x				x		x			x					x		x	x	x			x	x			x							x	x	x	x	x	x						
Eragrostis eriopoda								x																																		x											
Eragrostis leptocarpa																																x											x											
Eragrostis tenellula														x											x	x	x					x								x	x			x				x					x	
Eremophila forrestii subsp. *forrestii*																		x																																				
Eremophila longifolia														x																			x						x				x											
Eriachne ? benthamii																																							x															
Eriachne aristidea									x													x						x					x					x															
Eriachne benthamii																											x					x					x															
Eriachne flaccida																									x																												x	
Eriachne helmsii				x	x																		x																															
Eriachne mucronata							x																										x		x	x													x	x	x	x	x		x
Eriachne pulchella		x				x		x							x				x						x											x		x												x				
Eriachne pulchella subsp. *dominii*	x								x		x		x			x	x	x				x					x		x						x			x																
Eriachne tenuiculmis																																	x																					
Eucalyptus camaldulensis subsp. *refulgens*																									x		x														x															
Eucalyptus leucophloia			x				x																										x		x															x	x	x		x
Eucalyptus victrix																									x	x	x									x	x	x			x					x							
Eulalia aurea																											x										x	x			x												x	
Euphorbia biconvexa														x						x							x		x			x					x				x												
Euphorbia boophthona			x	x				x	x	x	x			x			x	x		x		x	x		x	x	x	x	x	x	x	x	x			x		x	x	x		x	x		x							
Euphorbia careyi																									x															x															
Euphorbia hirta																									x		x		x																										
Euphorbia tannensis subsp. *eremophila*					x										x				x		x																x												x	x					
Euphorbia trigonosperma				x	x													x						x	x	x							x						x									x	x				x	
Euphorbia vaccaria var. *vaccaria*	x			x				x	x	x		x		x	x		x	x	x	x	x	x	x		x	x	x	x					x	x			x	x	x		x	x		x	x	x						
Evolvulus alsinoides var. *decumbens*		x								x	x			x											x		x		x			x		x						x	x									x			
Evolvulus alsinoides var. *villosicalyx*			x	x					x	x				x				x		x	x	x	x	x	x	x	x	x		x	x	x	x					x		x	x	x	x	x	x	x	x	x				
Ficus brachypoda																																																				x		
Ficus platypoda																																																			x			
Fimbristylis ? dichotoma																																																			x			
Fimbristylis dichotoma																				x		x									x	x	x																				
Fimbristylis elegans														x																	x	x						x									x						
Flaveria trinervia																										x																												
Gomphrena affinis																		x																																					
Gomphrena cunninghamii		x														x		x		x														x																				
Goodenia forrestii				x				x	x	x				x		x		x	x	x	x	x				x	x	x	x				x		x				x									x	x	x				

Taxon	RMQ01	RMQ02	RMQ03	RMQ04	RMQ05	RMQ06	RMQ07	RMQ08	RMQ09	RMQ10	RMQ11	RMQ12	RMQ13	RMQ14	RMQ15	RMQ16	RMQ17	RMQ18	RMQ19	RMQ20	RMQ21	RMQ22	RMQ23	RMQ24	RMQ25	RMQ26	RMQ27	RMQ28	RMQ29	RMQ30	RMQ31	RMQ32	RMQ33	RMQ34	RMQ35	RMQ36	RMQ37	RMQ38	RMQ39	RMQ40	RMQ41	RMQ42	RMQ43	RMQ44	RMQ45	RMQ46	RMQ47	RMQ48	RMQ49	RMQ50	RMRCG01	RMRKM01	RMRKM10	RMRKM11
Goodenia lamprosperma														x											x		x				x																				x	
Goodenia microptera	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x	x		x	x	x	x			x		x	x		x	x		x	x	x				x	
Goodenia nuda																																											x										
Goodenia tenuiloba sens. lat.										x																																					x							
Gossypium australe	x			x	x			x	x	x				x	x			x	x	x	x	x	x	x	x			x	x	x	x		x	x	x	x	x	x		x	x	x	x	x							
Gossypium robinsonii																									x		x			x		x		x		x			x	x			x									x	
Grevillea pyramidalis																												x	x					x																			
Grevillea wickhamii subsp. *hispidula*																							x											x																			
Hakea lorea subsp. *lorea*				x				x	x					x	x						x	x						x			x	x	x			x			x	x	x	x										
Haloragis gossei	x	x		x					x	x					x																																							
Heliotropium crispatum																												x																										
Heliotropium heteranthum								x	x								x		x	x		x						x					x		x																		
Hibiscus ? sturtii																																																x						
Hibiscus brachychlaenus				x	x					x							x													x													x								
Hibiscus burtonii				x																																												x					
Hibiscus coatesii	x	x																										x							x																		
Hibiscus goldsworthii																																																					
Hibiscus leptocladus								x	x																					x																							
Hibiscus sturtii									x																													x				x										
Hibiscus sturtii ? var. *campylochlamys*									x	x				x		x	x	x	x	x	x	x	x		x	x	x	x	x		x	x	x	x	x			x	x	x			x	x		x		x					
Hibiscus sturtii var. *platychlamys*								x																										x																		
Hybanthus aurantiacus																																							x			x										
Indigofera boviperda																																						x										x				
Indigofera boviperda subsp. *boviperda*				x	x			x						x						x		x		x					x		x									x		x									
Indigofera chamaeclada subsp. *pubens*				x																																																
Indigofera colutea				x	x			x																			x	x					x								x		x									
Indigofera linifolia																				x																																	
Indigofera linnaei														x																																							
Indigofera monophylla									x	x																																						x	x				
Ipomoea ? plebeia																																																					
Ipomoea coptica																															x																						
Ipomoea muelleri										x				x							x		x		x		x	x	x			x									x	x									x	
Ipomoea polymorpha																																		x																		
Ipomoea sp.																																																				
Iseilema dolichotrichum																											x	x																									
Iseilema membranaceum																																									x										
Isotropis atropurpurea										x				x																		x							x								x				
Jasminum didymum subsp. *lineare*					x				x	x				x											x									x					x												
Lepidium pholidogynum																																																				
Lotus cruentus																																																				
Maireana melanocoma																																																				

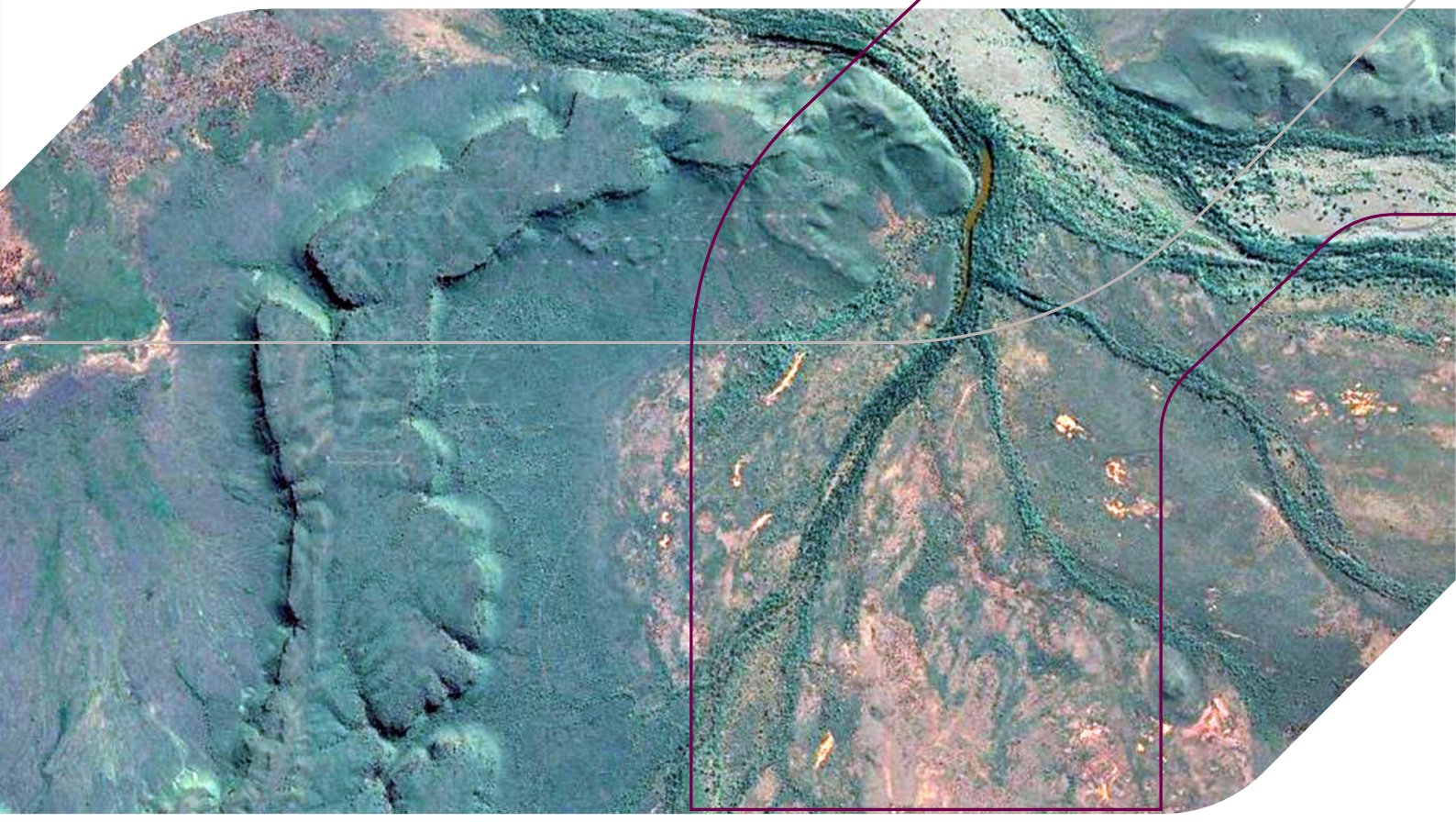
Taxon	RMQ01	RMQ02	RMQ03	RMQ04	RMQ05	RMQ06	RMQ07	RMQ08	RMQ09	RMQ10	RMQ11	RMQ12	RMQ13	RMQ14	RMQ15	RMQ16	RMQ17	RMQ18	RMQ19	RMQ20	RMQ21	RMQ22	RMQ23	RMQ24	RMQ25	RMQ26	RMQ27	RMQ28	RMQ29	RMQ30	RMQ31	RMQ32	RMQ33	RMQ34	RMQ35	RMQ36	RMQ37	RMQ38	RMQ39	RMQ40	RMQ41	RMQ42	RMQ43	RMQ44	RMQ45	RMQ46	RMQ47	RMQ48	RMQ49	RMQ50	RMRCG01	RMRKM01	RMRKM10	RMRKM11
Maireana planifolia																x			x					x																						x								
Malvastrum americanum														x		x			x		x			x	x	x	x	x	x			x		x					x	x	x		x	x					x				x	
Marsilea costulifera																																							x						x		x						x	
Marsilea drummondii																									x		x																											
Marsilea hirsuta																															x	x																						
Melaleuca argentea																																																					x	
Melaleuca glomerata																									x		x													x													x	
Melhania oblongifolia														x											x		x					x		x					x		x													
Mimulus gracilis																																x																						
Myriocephalus sp.																																									x													
Neptunia dimorphantha																																x																						
Nicotiana benthamiana																									x	x																								x				
Nicotiana sp.																										x								x																				
Notoleptopus decaisnei										x				x		x	x	x	x		x		x	x	x	x	x	x	x	x				x		x			x	x	x			x			x	x	x					
Paraneurachne muelleri														x			x				x		x						x					x					x										x					
Paspalidium ? clementii																													x																									
Paspalidium clementii	x	x		x			x		x	x	x	x		x	x	x		x	x	x	x	x	x	x	x	x	x	x				x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x		x
Paspalidium rarum																													x		x			x																				
Passiflora foetida var. *hispida*																																								x														
Peplidium muelleri																															x	x													x									
Perotis rara														x													x	x						x										x										
Petalostylis labicheoides																											x									x			x	x			x									x	x	
Phyllanthus erwinii			x					x	x	x				x				x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x				x	x	x	x	x	x	x		x		x					
Phyllanthus maderaspatensis														x											x		x					x		x					x	x	x		x						x				x	
Phyllanthus sp.																																																			x			
Pluchea ? tetranthera										x																																					x							
Pluchea dentex																																								x														
Pluchea dunlopii																																							x															
Pluchea ferdinandi-muelleri																																							x										x					
Pluchea rubelliflora														x													x				x	x							x	x			x				x						x	
Polycarpaea corymbosa								x		x				x				x	x	x	x	x	x	x			x		x		x		x	x	x							x		x	x		x		x					
Polycarpaea holtzei	x										x	x			x				x	x		x											x								x													
Polycarpaea longiflora																						x			x		x													x														
Polygala glaucifolia																											x		x																									
Polymeria ambigua														x													x					x																						
Portulaca cyclophylla																																																						
Portulaca oleracea								x	x	x				x	x	x	x	x	x	x	x	x		x	x	x	x	x	x		x	x	x	x	x				x		x	x		x	x	x	x							
Pseudognaphalium luteoalbum																																																					x	
Pterocaulon serrulatum var. *velutinum*																																											x											
Pterocaulon sphacelatum		x						x		x				x				x		x	x	x			x	x	x	x	x		x		x			x			x	x			x	x	x		x							
Ptilotus aervoides																	x			x						x									x																			
Ptilotus appendiculatus					x									x							x		x				x	x	x		x			x	x						x													

Taxon	RMQ01	RMQ02	RMQ03	RMQ04	RMQ05	RMQ06	RMQ07	RMQ08	RMQ09	RMQ10	RMQ11	RMQ12	RMQ13	RMQ14	RMQ15	RMQ16	RMQ17	RMQ18	RMQ19	RMQ20	RMQ21	RMQ22	RMQ23	RMQ24	RMQ25	RMQ26	RMQ27	RMQ28	RMQ29	RMQ30	RMQ31	RMQ32	RMQ33	RMQ34	RMQ35	RMQ36	RMQ37	RMQ38	RMQ39	RMQ40	RMQ41	RMQ42	RMQ43	RMQ44	RMQ45	RMQ46	RMQ47	RMQ48	RMQ49	RMQ50	RMRCG01	RMRKM01	RMRKM10	RMRKM11
Ptilotus arthrolasius					x			x																					x																							
Ptilotus astrolasius	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x		x	x		x	x	x		x	x		x	x	x	x	x	x	x				
Ptilotus auriculifolius	x							x		x			x		x	x	x	x	x	x		x			x				x			x		x																	
Ptilotus axillaris	x		x	x	x		x	x	x	x	x	x	x	x		x	x	x	x			x	x	x	x	x	x	x		x	x		x	x	x	x		x	x		x	x			x	x	x				
Ptilotus calostachyus	x	x	x			x	x		x	x					x		x		x			x												x		x												x				
Ptilotus chamaecladus				x																																																
Ptilotus clementii	x	x	x						x		x		x							x		x												x																		
Ptilotus exaltatus	x	x	x		x			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x	x			x	x	x				x	x	x		x	x	x	x	x				x
Ptilotus fusiformis	x	x	x	x	x	x	x	x	x		x					x	x	x	x			x	x				x	x		x			x	x	x	x	x			x	x			x					x			
Ptilotus gomphrenoides																															x																					
Ptilotus incanus															x																			x	x																	
Ptilotus obovatus																																								x												
Ptilotus polystachyus													x																																			x				
Rhagodia eremaea																										x																										
Rhodanthe margarethae																																																	x			
Rhynchosia minima				x						x				x				x							x		x		x	x				x		x				x	x	x		x	x			x	x				
Rotala diandra																																																			x		
Rotala mexicana																																																			x		
Salsola australis																x			x			x		x		x					x																		x	x				
Scaevola parvifolia subsp. *pilbarae*				x																																																
Scaevola spinescens																																																					
Schenkia australis																																							x												x		
Schoenoplectus laevis																															x																					
Sclerolaena costata																		x					x		x					x										x	x			x	x	x						
Sclerolaena densiflora																		x																														x						
Scleromitrion galioides																																																				
Senna artemisioides subsp. *helmsii*																																																				
Senna artemisioides subsp. *oligophylla*			x						x	x				x			x	x		x	x			x	x	x	x	x	x			x		x	x				x		x			x	x		x					
Senna artemisioides subsp. *oligophylla x helmsii*				x																																															
Senna glutinosa subsp. *glutinosa*	x	x	x				x		x																									x	x						x				x			x		x
Senna glutinosa subsp. *pruinosa*	x		x						x	x					x					x		x										x																				
Senna glutinosa subsp. *x luerssenii*			x						x						x				x			x		x													x															
Senna notabilis	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x		x	x	x			x	x
Senna venusta																																			x																x	
Seringia nephrosperma																																																				
Sesbania cannabina																									x		x													x											x	
Setaria dielsii																									x		x		x				x																x			
Setaria verticillata														x												x														x	x	x		x			x					
Sida aff fibulifera																x																																				
Sida arenicola				x																																																
Sida arsiniata	x							x	x	x				x	x		x	x	x	x	x	x	x	x		x	x	x	x		x		x	x	x			x			x	x		x	x	x	x	x	x				
Sida cardiophylla				x																																														x			

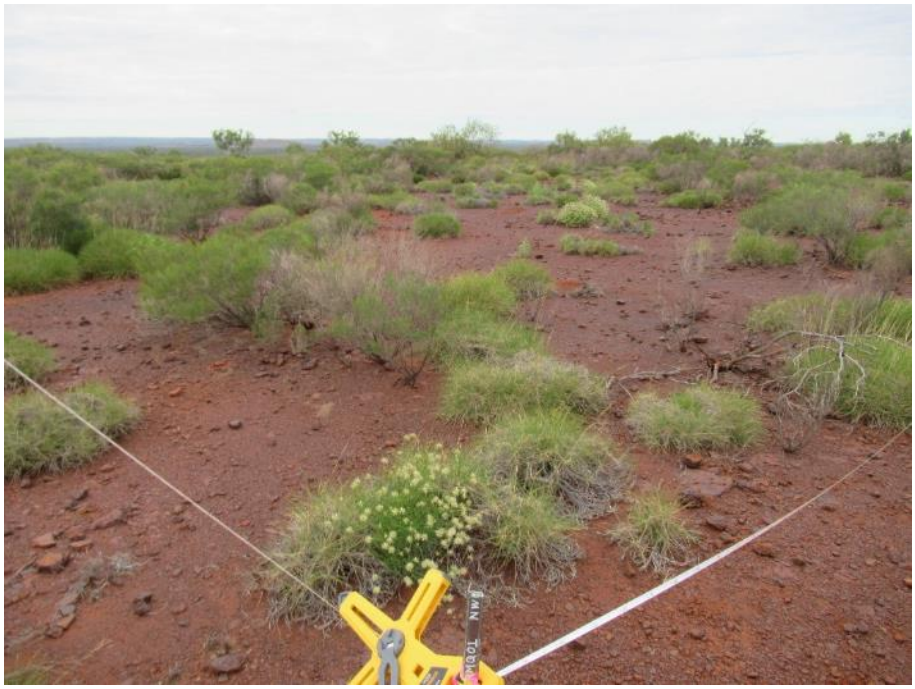
Taxon	RMQ01	RMQ02	RMQ03	RMQ04	RMQ05	RMQ06	RMQ07	RMQ08	RMQ09	RMQ10	RMQ11	RMQ12	RMQ13	RMQ14	RMQ15	RMQ16	RMQ17	RMQ18	RMQ19	RMQ20	RMQ21	RMQ22	RMQ23	RMQ24	RMQ25	RMQ26	RMQ27	RMQ28	RMQ29	RMQ30	RMQ31	RMQ32	RMQ33	RMQ34	RMQ35	RMQ36	RMQ37	RMQ38	RMQ39	RMQ40	RMQ41	RMQ42	RMQ43	RMQ44	RMQ45	RMQ46	RMQ47	RMQ48	RMQ49	RMQ50	RMRCG01	RMRKM01	RMRKM10	RMRKM11
Sida clementii																																										x													
Sida echinocarpa				x	x			x	x						x		x	x	x	x	x	x	x	x						x		x	x	x			x						x				x							
Sida fibulifera																										x	x	x	x					x					x		x														
Sida platycalyx																																																								
Sida rohlenae subsp. *rohlenae*																													x									x																		
Sida sp.																																				x																			
Sida sp. L (A.M. Ashby 4202)				x										x							x		x		x		x	x	x		x	x					x	x				x					x							
Sida sp. Pilbara (A.A. Mitchell PRP 1543)	x	x	x			x	x				x	x	x	x			x	x	x				x												x																					
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)					x									x							x				x	x	x							x			x	x			x													
Solanum cleistogamum		x							x				x					x	x		x				x	x	x		x	x	x	x		x					x			x				x	x							
Solanum diversiflorum	x	x	x	x	x			x	x	x		x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x		x			x	x			x			x	x				x		
Solanum ellipticum									x																																												x		
Solanum horridum	x	x	x	x						x		x				x												x						x	x	x																		
Sporobolus australasicus		x							x	x	x			x	x	x		x	x	x	x	x		x	x	x	x	x	x			x	x	x	x			x		x	x		x	x		x						x	
Stemodia grossa																x									x		x					x																					x	
Streptoglossa ? bubakii															x			x																																					
Streptoglossa ? tenuiflora	x						x																					x																											
Streptoglossa bubakii									x	x				x		x				x	x	x					x		x			x			x					x	x					x	x							
Streptoglossa decurrens	x	x						x		x								x	x		x	x				x			x		x	x	x	x	x							x	x		x		x			x				
Streptoglossa odora																										x		x								x																		
Streptoglossa sp.																																																x								
Striga curviflora																				x												x																							
Stylidium spathulatum																																																			x					
Stylobasium spathulatum										x															x						x		x												x								
Swainsona formosa															x																										x														
Synaptantha tillaeacea var. *tillaeacea*								x						x						x		x			x		x			x	x	x		x					x		x	x	x			x							
Tephrosia aff. *remotiflora* 'Peedamulla form'																																		x																				
Tephrosia rosea																																																							
Tephrosia rosea var. Fortescue creeks																									x														x	x								x			x	
Tephrosia sp. B Kimberley Flora (C.A. Gardner 7300)				x	x			x																					x																								
Tephrosia sp. NW Eremaean (S. van Leeuwen et al. PBS 0356)																				x																																			
Tephrosia supina																																						x																
Tephrosia uniovulata														x				x																		x		x															
Themeda triandra																									x		x		x					x		x		x	x			x					x						
Tinospora smilacina																																																						x		
Trachymene oleracea	x	x	x			x			x	x								x																x																		x		
Trachymene pilbarensis	x																																																					
Trianthema oxycalyptrum var. *oxycalyptrum*																										x																												
Trianthema pilosa					x									x													x					x									x												
Trianthema triquetra								x	x					x		x		x	x	x	x	x		x	x	x	x	x		x	x	x	x	x					x		x	x		x	x	x	x						
Tribulopis angustifolia				x	x																																																		
Tribulus ? occidentalis																											x																											

Taxon	RMQ01	RMQ02	RMQ03	RMQ04	RMQ05	RMQ06	RMQ07	RMQ08	RMQ09	RMQ10	RMQ11	RMQ12	RMQ13	RMQ14	RMQ15	RMQ16	RMQ17	RMQ18	RMQ19	RMQ20	RMQ21	RMQ22	RMQ23	RMQ24	RMQ25	RMQ26	RMQ27	RMQ28	RMQ29	RMQ30	RMQ31	RMQ32	RMQ33	RMQ34	RMQ35	RMQ36	RMQ37	RMQ38	RMQ39	RMQ40	RMQ41	RMQ42	RMQ43	RMQ44	RMQ45	RMQ46	RMQ47	RMQ48	RMQ49	RMQ50	RMRCG01	RMRKM01	RMRKM10	RMRKM11
Tribulus astrocarpus									x						x	x		x	x				x	x				x							x			x																
Tribulus hirsutus				x	x			x		x					x	x	x			x									x				x																				
Tribulus macrocarpus				x	x			x	x	x						x	x	x	x			x	x				x	x	x	x			x	x					x	x		x			x								
Tribulus occidentalis																													x																										
Tribulus platypterus								x	x	x					x																																									
Tribulus suberosus																																				x																				
Tribulus terrestris																																								x			x												
Trichodesma zeylanicum var. *zeylanicum*		x	x	x	x					x	x				x			x	x							x							x		x						x					x	x						
Trigastrotheca molluginea	x	x						x	x	x				x	x		x	x	x	x		x					x			x			x	x	x						x		x		x		x	x						
Triodia epactia				x	x			x						x		x		x	x		x	x	x	x	x	x	x	x	x	x	x	x	x					x	x	x	x	x	x	x	x	x	x			x		
Triodia pisoliticola							x																											x		x															x	x	x		x
Triodia wiseana	x	x	x			x	x		x	x	x	x	x		x	x	x	x	x	x		x		x	x			x	x	x			x	x		x			x		x	x				x	x	x	x	x		x
Triumfetta chaetocarpa																	x	x			x														x		x											x						
Triumfetta clementii			x	x				x	x	x				x	x		x	x	x	x	x	x	x		x		x	x	x					x					x			x	x			x							
Triumfetta johnstonii														x																										x														
Urochloa occidentalis var. *occidentalis*																										x	x		x																									
Vachellia farnesiana																				x					x	x	x				x	x							x	x	x		x										
Vigna lanceolata var. *lanceolata*														x											x		x		x			x							x	x			x									x	
Wahlenbergia tumidifructa																									x		x												x	x			x									x	
Waltheria indica				x						x				x			x	x			x	x	x		x					x		x		x					x	x	x		x	x				x	x					x	

Appendix E
Detailed site data



APPENDIX E: DETAILED SITE DATA



Site	**RMQ01**				
Described by	KM	Date	20/06/2021	Type	Quadrat 50 x 50
Season	Excellent				
Zone	50 K	Easting/Northing		398636.00 mE, 7594037.00 mS	
Habitat	Mesa top. Gently sloping NE facing				
Soil	SandyLoam				
Rock Type	Iron stone				
Vegetation	*Acacia atkinsiana* Tall Isolated Shrubs over *Acacia arida* Mid Open Shrubland over a mixed Low Isolated Shrubs / Forbs including *Ptilotus fusiformis*, *Corchorus tectus*, *Dysphania rhadinostachya* subsp. *inflata*, *Senna notabilis* and *Sida* sp. Pilbara (A.A. Mitchell PRP 1543) over *Triodia wiseana* Hummock Grassland.				
Veg Condition	E				
Fire Age	> 5 years				

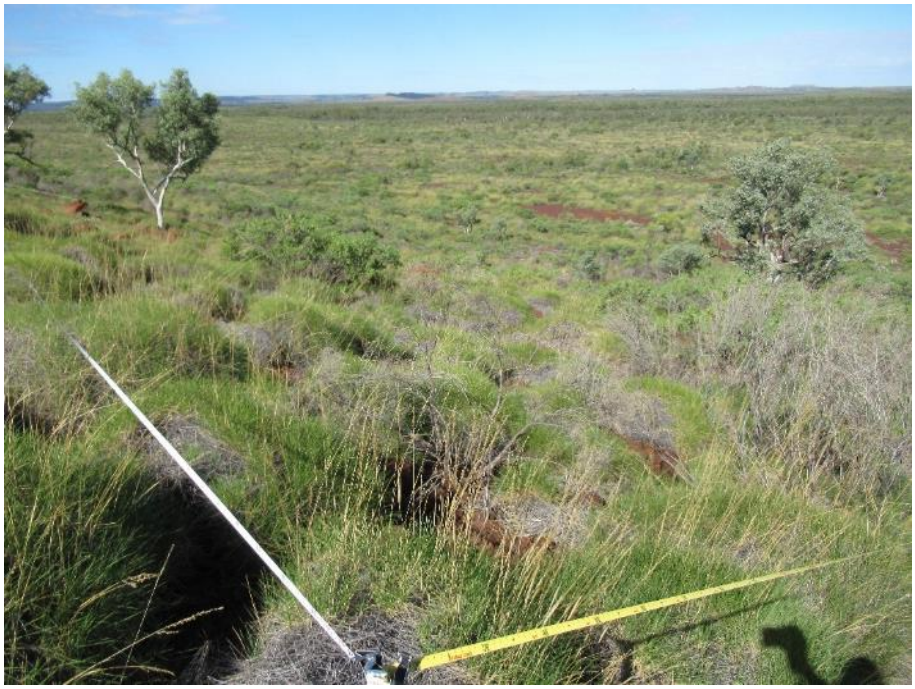
Taxon	Cover (%)	Height (cm)	Collection no.
Abutilon sp. Pilbara (W.R. Barker 2025)	0.1	15	RMQ01-15
Acacia arida	15	150	RMQ01-02
Acacia atkinsiana	0.5	250	RMQ01-01
Afrohybanthus aurantiacus	0.1	20	RMQ01-19
Arivela viscosa	0.1	30	
Bonamia pilbarensis	0.1	10	RMQ01-18
Corchorus tectus	0.2	40	RMQ01-16
Corchorus tridens	0.1	10	RMQ01-28
Dodonaea coriacea	0.1	30	
Dysphania kalpari	0.1	10	RMQ01-25

Taxon	Cover (%)	Height (cm)	Collection no.
Dysphania rhadinostachya subsp. *inflata*	0.2	40	RMQ01-06
Eriachne pulchella subsp. *dominii*	0.2	10	RMQ01-07
Euphorbia vaccaria var. *vaccaria*	0.1	10	RMQ01-13
Goodenia microptera	0.1	30	RMQ01-12
Gossypium australe	0.1	40	
Haloragis gossei	0.1	40	RMQ01-20
Hibiscus coatesii	0.1	60	RMQ01-14
Paspalidium clementii	0.1	10	RMQ01-23
Polycarpaea holtzei	0.1	6	
Ptilotus astrolasius	0.1	20	RMQ01-26
Ptilotus auriculifolius	0.1	30	
Ptilotus axillaris	0.1	10	RMQ01-27
Ptilotus calostachyus	0.1	30	
Ptilotus clementii	0.1	10	
Ptilotus exaltatus	0.1	40	
Ptilotus fusiformis	0.5	60	RMQ01-05
Senna glutinosa subsp. *glutinosa*	0.3	150	RMQ01-04
Senna glutinosa subsp. *pruinosa*	0.1	170	RMQ01-21
Senna notabilis	0.2	30	
Sida arsiniata	0.1	30	RMQ01-29
Sida sp. Pilbara (A.A. Mitchell PRP 1543)	0.2	50	RMQ01-17
Solanum diversiflorum	1.2	40	RMQ01-10
Solanum horridum	0.1	30	RMQ01-08
Streptoglossa ? tenuiflora	0.1	20	RMQ01-11
Streptoglossa decurrens	0.1	20	RMQ01-24
Trachymene oleracea	0.1	40	
Trachymene pilbarensis	0.1	30	RMQ01-09
Trigastrotheca molluginea	0.1	10	RMQ01-22
Triodia wiseana	35	80	RMQ01-03

Site	**RMQ02**				
Described by	BRM	Date	20/06/2021	Type	Quadrat 50 x 50
Season	Excellent				
Zone	50 K	Easting/Northing		397921.81 mE, 7593909.17 mS	
Habitat	Crest of mesa, very gently undulating				
Soil	SandyLoam				
Rock Type	Iron stone				
Vegetation	*Acacia arida* Mid Sparse Shrubland over *Ptilotus fusiformis* and *Senna notabilis* Low Isolated Shrubs over *Triodia wiseana* Hummock Grassland				
Veg Condition	E				
Fire Age	6 years & long unburnt – mixed				

Taxon	Cover (%)	Height (cm)	Collection no.
Acacia arida	8	250	RMQ02-04
Aristida holathera var. *holathera*	0.1	40	RMQ02-10
Bonamia pannosa	0.1	10	RMQ02-17
Corchorus tectus	0.1	40	RMQ02-03
Dysphania rhadinostachya subsp. *rhadinostachya*	0.1	20	RMQ02-05
Eragrostis dielsii	0.1	10	RMQ02-12
Eriachne pulchella	0.1	20	
Evolvulus alsinoides var. *decumbens*	0.1	25	RMQ02-14
Gomphrena cunninghamii	0.1	20	
Goodenia microptera	0.1	25	RMQ02-16
Haloragis gossei	0.1	25	RMQ02-09
Hibiscus coatesii	0.1	10	RMQ02-15
Paspalidium clementii	0.1	30	RMQ02-13
Pterocaulon sphacelatum	0.1	30	RMQ02-18

Taxon	Cover (%)	Height (cm)	Collection no.
Ptilotus astrolasius	0.1	15	
Ptilotus calostachyus	0.1	80	
Ptilotus clementii	0.1	40	RMQ02-08
Ptilotus exaltatus	0.1	50	
Ptilotus fusiformis	0.25	40	RMQ02-02
Senna glutinosa subsp. *glutinosa*	0.1	180	
Senna notabilis	0.25	30	
Sida sp. Pilbara (A.A. Mitchell PRP 1543)	0.1	20	RMQ02R-02
Solanum cleistogamum	0.1	40	RMQ02-07
Solanum diversiflorum	0.1	12	
Solanum horridum	0.1	50	RMQ02-11
Sporobolus australasicus	0.1	25	
Streptoglossa decurrens	0.1	60	
Trachymene oleracea	0.1	60	
Trichodesma zeylanicum var. *zeylanicum*	0.1	60	
Trigastrotheca molluginea	0.1	20	
Triodia wiseana	35	80	RMQ02-01



Site	**RMQ03**				
Described by	KM	Date	20/06/2021	Type	Quadrat 50 x 50
Season	Excellent				
Zone	50 K	Easting/Northing		398827 mE, 7593886 mS	
Habitat	Mesa slopes				
Soil	SandyLoam				
Rock Type	Iron stone				
Vegetation	*Eucalyptus leucophloia* Low Isolated Trees over *Acacia bivenosa* and *Senna glutinosa* subsp. *glutinosa* Mid Open Shrubland over *Triodia wiseana* Hummock Grassland				
Veg Condition	E				
Fire Age	>10 years				

Taxon	Cover (%)	Height (cm)	Collection no.
Abutilon lepidum	0.1	130	RMQ03-02
Acacia acradenia	0.1	180	RMQ03-06
Acacia arida	0.1	150	
Acacia bivenosa	15	150	RMQ03-01
Amaranthus undulatus	0.1	25	RMQ03-07
Corchorus tectus	0.25	100	RMQ01-16=
Dolichocarpa crouchiana	0.1	40	RMQ03-05
Dysphania rhadinostachya subsp. *inflata*	0.1	40	RMQ01-06=
Eucalyptus leucophloia	2	800	
Euphorbia boophthona	0.1	10	RMQ09-01=
Evolvulus alsinoides var. *villosicalyx*	0.1	30	RMQ03-03
Goodenia microptera	0.1	30	
Phyllanthus erwinii	0.1	40	RMQ03-08
Ptilotus astrolasius	0.1	20	

Taxon	Cover (%)	Height (cm)	Collection no.
Ptilotus axillaris	0.1	20	
Ptilotus calostachyus	0.1	30	
Ptilotus clementii	0.1	50	
Ptilotus exaltatus	0.1	15	
Ptilotus fusiformis	0.1	45	
Senna artemisioides subsp. *oligophylla*	0.1	20	
Senna glutinosa subsp. *glutinosa*	0.5	200	
Senna glutinosa subsp. *pruinosa*	0.1	130	
Senna glutinosa subsp. x *luerssenii*	0.1	40	
Senna notabilis	0.1	100	
Sida sp. Pilbara (A.A. Mitchell PRP 1543)	0.1	40	RMQ01-17=
Solanum diversiflorum	0.1	40	
Solanum horridum	0.1	30	RMQ01-08=
Trachymene oleracea	0.1	100	
Trichodesma zeylanicum var. *zeylanicum*	0.1	90	
Triodia wiseana	50	90	
Triumfetta clementii	0.1	40	RMQ03-04

Site	**RMQ04**				
Described by	BRM	Date	20/06/2021	Type	Quadrat 50 x 50
Season	Excellent				
Zone	50 K	Easting/Northing		398410.68 mE, 7593446.57 mS	
Habitat	Flat plain				
Soil	SandyLoam				
Rock Type	-				
Vegetation	*Corymbia hamersleyana* Low Isolated Trees over *Acacia* spp. Mid Isolated Shrubs over *Ptilotus axillaris*, *Rhynchosia minima*, *Senna notabilis* and *Indigofera boviperda* subsp. *boviperda* Low Isolated Shrubs over *Triodia epactia* Hummock Grassland				
Veg Condition	E				
Fire Age	>6 years				

Taxon	Cover (%)	Height (cm)	Collection no.
Abutilon otocarpum	0.1	40	
Abutilon sp. Pilbara (W.R. Barker 2025)	0.1	5	
Acacia ancistrocarpa	0.1	90	
Acacia arida	0.1	180	RMQ02-04=
Acacia bivenosa	0.1	10	
Acacia inaequilatera	0.1	150	
Acacia synchronicia	0.1	200	
Acacia trachycarpa	0.1	60	RMQ04-03
Aristida holathera var. holathera	0.2	40	RMQ04-06
Arivela viscosa	0.1	40	
Boerhavia coccinea	0.1	25	RMQ04-16
Bonamia erecta	0.3	30	
Corchorus sidoides subsp. *sidoides*	0.1	15	RMQ04-04

Taxon	Cover (%)	Height (cm)	Collection no.
Corchorus tectus	0.1	45	RMQ04-23
Corymbia candida subsp. *candida*	0.1	80	RMQ04-08
Corymbia hamersleyana	3	400	
Cucumis variabilis	0.1	150	
Cullen martinii	0.1	70	RMQ04-13
Dodonaea coriacea	0.1	15	RMQ04-07
Eriachne helmsii	0.1	45	RMQ04-28
Euphorbia boophthona	0.1	60	RMQ04-11
Euphorbia trigonosperma	0.1	45	RMQ04-12
Euphorbia vaccaria var. *vaccaria*	0.1	5	RMQ04-21
Evolvulus alsinoides var. *villosicalyx*	0.1	20	RMQ04-24
Goodenia forrestii	0.1	40	
Goodenia microptera	0.1	30	RMQ04-01
Gossypium australe	0.1	5	
Hakea lorea subsp. *lorea*	0.1	50	
Haloragis gossei	0.1	20	RMQ02-09=
Hibiscus brachychlaenus	0.1	60	RMQ04-15
Hibiscus burtonii	0.1	50	RMQ04R-01
Indigofera boviperda subsp. *boviperda*	0.2	20	RMQ04-17
Indigofera chamaeclada subsp. *pubens*	0.1	6	RMQ04-10
Indigofera colutea	0.1	5	
Paspalidium clementii	0.1	10	
Ptilotus astrolasius	0.1	20	
Ptilotus axillaris	1	20	RMQ02ADJ1=
Ptilotus chamaecladus	0.1	30	RMQ04-14
Ptilotus fusiformis	0.1	40	
Rhynchosia minima	0.3	30	
Scaevola parvifolia subsp. *pilbarae*	0.1	20	
Senna artemisioides subsp. *oligophylla* x *helmsii*	0.1	25	RMQ04-09
Senna notabilis	0.3	45	
Sida arenicola	0.1	120	RMQ04-26
Sida cardiophylla	0.1	140	RMQ04-30
Sida echinocarpa	0.1	30	RMQ04-05
Sida sp. L (A.M. Ashby 4202)	0.1	30	RMQ04-27
Solanum diversiflorum	0.1	30	
Solanum horridum	0.1	40	RMQ02-11=
Tephrosia sp. B Kimberley Flora (C.A. Gardner 7300)	0.1	70	RMQ04-18
Tribulopis angustifolia	0.1	10	
Tribulus hirsutus	0.1	15	RMQ04-19
Tribulus macrocarpus	0.1	20	RMQ04-22
Trichodesma zeylanicum var. *zeylanicum*	0.1	130	
Triodia epactia	40	70	RMQ04-02
Triumfetta clementii	0.1	5	RMQ04-29
Waltheria indica	0.1	25	

Site	**RMQ05**				
Described by	BRM	Date	21/06/2021	Type	Quadrat 50 x 50
Season	Excellent				
Zone	50 K	Easting/Northing		398232.93 mE, 7593056.56 mS	
Habitat	Plain; Very gentle, east-facing plain at base of Mesa				
Soil	LoamySand				
Rock Type	-				
Vegetation	*Corymbia hamersleyana* Low Isolated Trees over *Acacia trachycarpa* Mid Isolated Shrubs over *Ptilotus axillaris*, *Tribulus macrocarpus* and *Tribulus hirsutus* Low Isolated Shrubs over *Triodia epactia* Hummock Grassland				
Veg Condition	E				
Fire Age	>10 years (large hummocks)				

Taxon	Cover (%)	Height (cm)	Collection no.
Abutilon otocarpum	0.1	35	
Acacia trachycarpa	1	280	
Aristida holathera var. *holathera*	0.1	50	RMQ04-06=
Arivela viscosa	0.1	45	
Boerhavia coccinea	0.1	20	RMQ05-14
Bonamia erecta	0.1	40	
Bonamia linearis	0.1	1	RMQ30R-01=
Bonamia pannosa	0.1	10	RMQ05-10
Corchorus sidoides subsp. *sidoides*	0.1	20	RMQ04-04=
Corymbia hamersleyana	2.5	400	
Cucumis variabilis	0.1	150	
Cynanchum floribundum	0.1	30	RMQ05-15
Eriachne helmsii	0.1	50	RMQ04-28=

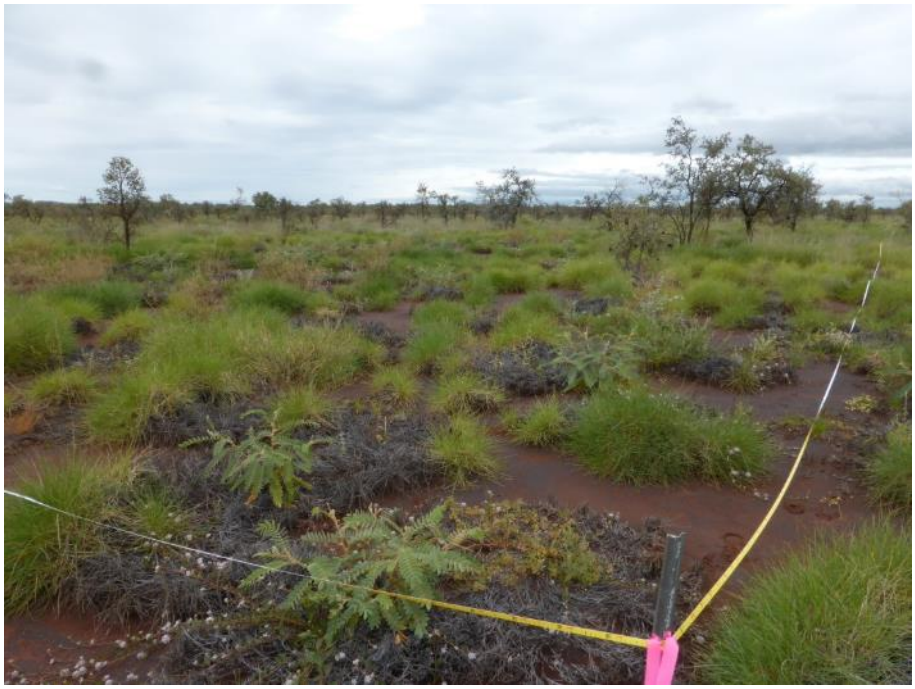
Taxon	Cover (%)	Height (cm)	Collection no.
Euphorbia tannensis subsp. *eremophila*	0.1	70	RMQ05-04
Euphorbia trigonosperma	0.1	30	RMQ05-06
Goodenia microptera	0.1	40	RMQ05-01
Gossypium australe	0.1	20	
Hibiscus brachychlaenus	0.1	30	RMQ05-07
Indigofera boviperda subsp. *boviperda*	0.1	30	RMQ05-01
Indigofera colutea	0.1	30	
Jasminum didymum subsp. *lineare*	0.1	150	
Ptilotus appendiculatus	0.1	40	
Ptilotus arthrolasius	1	35	RMQ04-14=
Ptilotus astrolasius	0.1	35	
Ptilotus axillaris	1	10	RMQ05-02
Ptilotus exaltatus	0.1	35	
Ptilotus fusiformis	0.1	50	
Senna notabilis	0.1	70	
Sida echinocarpa	0.1	50	RMQ05-08
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	40	RMQ05R-01
Solanum diversiflorum	0.1	40	RMQ05-03
Tephrosia sp. B Kimberley Flora (C.A. Gardner 7300)	10	80	RMQ04-18=
Trianthema pilosa	0.1	5	
Tribulopis angustifolia	0.1	10	RMQ05-05
Tribulus hirsutus	0.2	20	RMQ04-19=
Tribulus macrocarpus	0.5	20	RMQ04-22=
Trichodesma zeylanicum var. *zeylanicum*	0.1	15	
Triodia epactia	60	90	RMQ04-02=

Site	**RMQ06**				
Described by	CG	Date	21/06/2021	Type	Quadrat 50 x 50
Season	Excellent				
Zone	50 K	Easting/Northing		397868.33 mE, 7592617.3 mS	
Habitat	Rise on gently undulating Mesa crest				
Soil	SandyLoam				
Rock Type	Ironstone				
Vegetation	*Eucalyptus leucophloia* Low Isolated Trees over *Acacia arida* Mid Sparse Shrubland over *Triodia wiseana* Hummock Grassland				
Veg Condition	E				
Fire Age	> 5 years				

Taxon	Cover (%)	Height (cm)	Collection no.
Acacia arida	7	180	RMQ02-04=
Corchorus tectus	0.1	10	RMQ13R-02=
Dysphania rhadinostachya subsp. *rhadinostachya*	0.1	25	RMQ02-05=
Eriachne pulchella	0.1	15	
Goodenia microptera	0.1	15	RMQ02-16=
Ptilotus astrolasius	0.1	40	
Ptilotus calostachyus	0.1	30	
Ptilotus fusiformis	0.1	40	RMQ02-02=
Senna notabilis	0.1	30	
Sida sp. Pilbara (A.A. Mitchell PRP 1543)	0.1	10	RMQ13R-01=
Trachymene oleracea	0.1	100	
Triodia wiseana	45	90	RMQ02-01=

Site	**RMQ07**				
Described by	KM	Date	21/06/2021	Type	Quadrat 50 x 50
Season	Excellent				
Zone	50 K	Easting/Northing		398008 mE, 7593062 mS	
Habitat	Slope on edge of mesa				
Soil	SandyLoam				
Rock Type	Ironstone				
Vegetation	*Eucalyptus leucophloia* Low Isolated Trees over *Triodia wiseana* Hummock Grassland				
Veg Condition	E				
Fire Age	> 10 years				

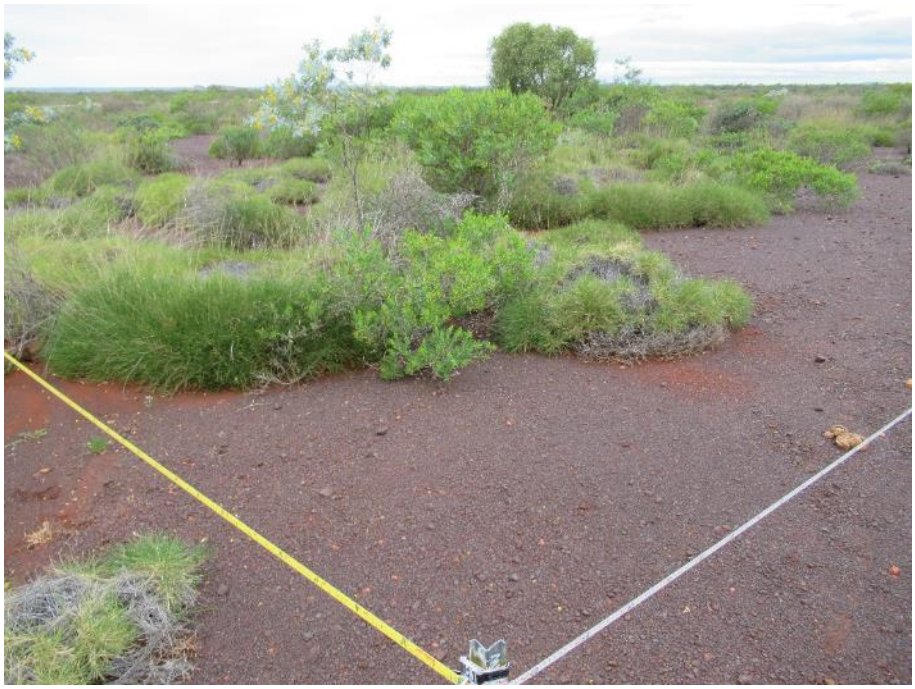
Taxon	Cover (%)	Height (cm)	Collection no.
Amaranthus undulatus	0.1	20	RMQ07R-03
Bonamia pilbarensis	0.1	10	RMQ01-18=
Bulbostylis barbata	0.1	10	
Corchorus sp.	0.1	10	RMQ07-02
Corchorus tectus	0.1	25	RMQ07R-01
Dodonaea coriacea	0.1	10	
Dysphania rhadinostachya subsp. *inflata*	0.1	30	RMQ01-06=
Eriachne mucronata	0.25	35	
Eucalyptus leucophloia	1.5	600	
Goodenia microptera	0.1	15	RMQ07R-04
Paspalidium clementii	0.2	20	RMQ01-23=
Ptilotus astrolasius	0.1	20	
Ptilotus axillaris	0.1	15	
Ptilotus calostachyus	0.1	50	
Ptilotus fusiformis	0.1	35	
Senna glutinosa subsp. *glutinosa*	0.1	160	
Senna notabilis	0.1	30	
Sida sp. Pilbara (A.A. Mitchell PRP 1543)	0.1	20	RMQ07R-02
Streptoglossa ? tenuiflora	0.1	15	RMQ01-11=
Triodia pisoliticola	0.1	70	RMQ07-01
Triodia wiseana	40	60	



Site	**RMQ08**				
Described by	BRM	Date	21/06/2021	Type	Quadrat 50 x 50
Season	Excellent				
Zone	50 K	Easting/Northing		398663 mE, 7593003 mS	
Habitat	Plain				
Soil	SandyLoam				
Rock Type	-				
Vegetation	*Acacia inaequilatera* and *Acacia synchronicia* Mid Isolated Shrubs over *Ptilotus axillaris*, *Senna notabilis*, *Cullen martinii*, *Ptilotus astrolasius* and *Tribulus platypterus* Low Isolated Shrubs over *Triodia epactia* Hummock Grassland				
Veg Condition	E				
Fire Age	>6years since fire				

Taxon	Cover (%)	Height (cm)	Collection no.
Abutilon sp. Pilbara (W.R. Barker 2025)	0.1	40	
Acacia inaequilatera	1	380	
Acacia synchronicia	0.3	140	
Acacia tumida var. *pilbarensis*	0.1	50	RMQ08-13
Arivela viscosa	1	70	
Bonamia linearis	0.1	10	RMQ08-06
Bonamia pannosa	0.1	5	RMQ05-10=
Bulbostylis barbata	0.3	15	
Corchorus sidoides subsp. *sidoides*	0.1	25	RMQ04-04=
Corchorus sp.	0.1	60	RMQ08-14
Corymbia hamersleyana	0.1	180	
Cucumis variabilis	0.1	60	
Cullen martinii	0.2	60	RMQ04-13=

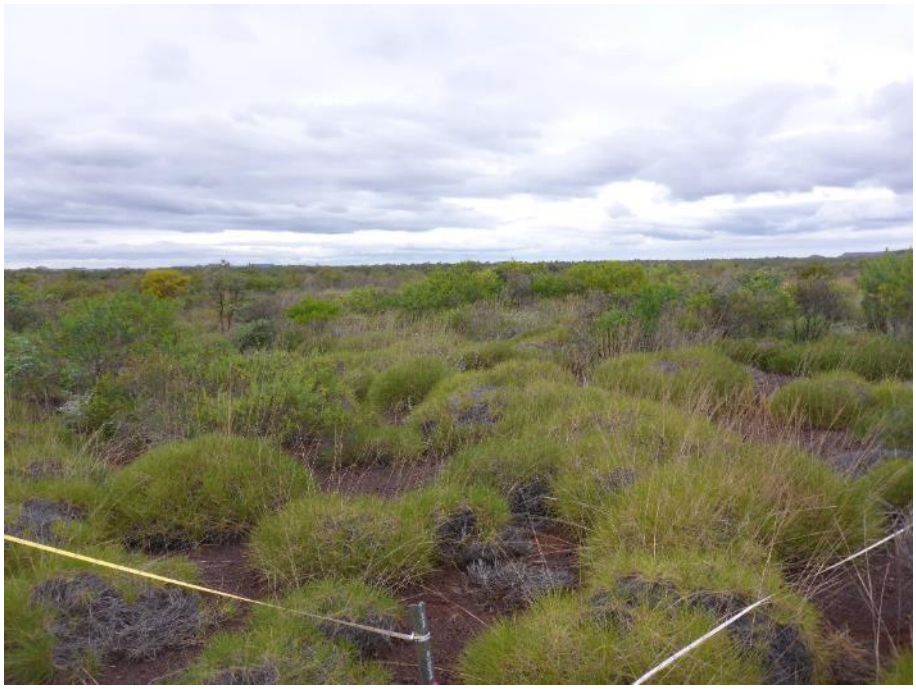
Taxon	Cover (%)	Height (cm)	Collection no.
Dolichocarpa crouchiana	0.1	20	
Dysphania rhadinostachya subsp. *rhadinostachya*	0.1	20	RMQ08-03
Eragrostis eriopoda	0.1	60	RMQ08R-01
Eriachne pulchella	0.1	20	
Euphorbia boophthona	0.1	30	RMQ08-07
Euphorbia vaccaria var. *vaccaria*	0.1	10	RMQ08-09
Goodenia forrestii	0.1	30	
Goodenia microptera	0.1	30	RMQ05-09=
Gossypium australe	0.1	25	
Hakea lorea subsp. *lorea*	0.1	130	RMQ08-17
Heliotropium heteranthum	0.1	4	RMQ08-18
Hibiscus leptocladus	0.1	35	RMQ08-10
Hibiscus sturtii var. *platychlamys*	0.1	30	RMQ08-16
Indigofera boviperda subsp. *boviperda*	0.1	15	RMQ05-01=
Indigofera colutea	0.1	20	
Phyllanthus erwinii	0.1	5	RMQ08-01
Polycarpaea corymbosa	0.1	25	
Portulaca oleracea	0.1	3	RMQ08-12
Pterocaulon sphacelatum	0.1	20	RMQ08R-02
Ptilotus arthrolasius	0.1	30	RMQ04-14=
Ptilotus astrolasius	0.2	30	
Ptilotus auriculifolius	0.1	30	RMQ08-02
Ptilotus axillaris	1	15	RMQ05-02=
Ptilotus exaltatus	0.1	70	
Ptilotus fusiformis	0.1	45	
Senna notabilis	1	60	
Sida arsiniata	0.1	60	RMQ08-04
Sida echinocarpa	0.1	50	RMQ08-05
Solanum diversiflorum	0.1	45	
Streptoglossa decurrens	0.1	10	
Synaptantha tillaeacea var. *tillaeacea*	0.1	3	RMQ08-15
Tephrosia sp. B Kimberley Flora (C.A. Gardner 7300)	0.1	60	
Trianthema triquetra	0.1	5	
Tribulus hirsutus	0.1	15	
Tribulus macrocarpus	0.1	20	
Tribulus platypterus	0.3	15	RMQ08-11
Trigastrotheca molluginea	0.1	4	
Triodia epactia	50	45	RMQ04-02=
Triumfetta clementii	0.1	30	RMQ08-08



Site	**RMQ09**				
Described by	KM	Date	21/06/2021	Type	Quadrat 50 x 50
Season	Excellent				
Zone	50 K	Easting/Northing		398706 mE, 7593607 mS	
Habitat	Undulating stony foothills				
Soil	SandyLoam				
Rock Type	Ironstone				
Vegetation	*Eucalyptus leucophloia* Low Isolated Trees over *Acacia bivenosa* and *Acacia* spp. Mid Open Shrubland over *Ptilotus* spp. and *Senna* spp. Low Sparse Shrubland over *Triodia wiseana* Hummock Grassland				
Veg Condition	E				
Fire Age	5 years plus				

Taxon	Cover (%)	Height (cm)	Collection no.
Abutilon sp. Pilbara (W.R. Barker 2025)	0.1	65	RMQ09-10
Acacia ancistrocarpa	0.25	180	
Acacia bivenosa	12	140	
Acacia elachantha	0.1	280	RMQ09-05
Acacia synchronicia	0.1	70	
Acacia wanyu	0.1	120	RMQ09-04
Aristida holathera var. *holathera*	0.1	50	
Arivela viscosa	0.1	50	
Corchorus sidoides subsp. *sidoides*	0.1	40	RMQ09-18
Corchorus tectus	0.1	50	RMQ09-19
Corymbia hamersleyana	0.1	400	
Cucumis variabilis	0.1	cr	
Cullen pogonocarpum	0.1	20	RMQ09R-01
Dolichocarpa crouchiana	0.1	30	

Taxon	Cover (%)	Height (cm)	Collection no.
Dysphania rhadinostachya subsp. *inflata*	0.1	40	RMQ01-06=
Eriachne aristidea	0.1	35	
Eriachne pulchella subsp. *dominii*	0.1	10	
Euphorbia boophthona	0.1	70	RMQ09-01
Euphorbia vaccaria var. *vaccaria*	0.1	10	RMQ01-13=
Evolvulus alsinoides var. *villosicalyx*	0.1	10	
Goodenia forrestii	0.1	10	RMQ09-13
Goodenia microptera	0.1	30	
Gossypium australe	0.1	50	
Hakea lorea subsp. *lorea*	0.1	120	
Haloragis gossei	0.1	40	RMQ09-09
Heliotropium heteranthum	0.1	1	
Hibiscus leptocladus	0.1	40	RMQ09-02
Hibiscus sturtii ? var. *campylochlamys*	0.1	15	RMQ09R-02
Hibiscus sturtii var. *campylochlamys*	0.1	20	RMQ09-20
Indigofera monophylla	0.1	70	RMQ09-08
Jasminum didymum subsp. *lineare*	0.1	cr	RMQ09-16
Paspalidium clementii	0.1	20	RMQ01-23=
Phyllanthus erwinii	0.1	20	RMQ03-08=
Portulaca oleracea	0.1	1	
Ptilotus astrolasius	0.25	40	
Ptilotus axillaris	0.5	10	
Ptilotus calostachyus	0.1	40	
Ptilotus clementii	0.1	50	
Ptilotus exaltatus	0.25	50	
Ptilotus fusiformis	0.1	50	
Senna artemisioides subsp. *oligophylla*	0.5	70	RMQ09-03
Senna glutinosa subsp. *glutinosa*	0.1	180	
Senna glutinosa subsp. *pruinosa*	0.25	190	
Senna glutinosa subsp. x *luerssenii*	0.25	170	RMQ09-15
Senna notabilis	0.1	20	
Sida arsiniata	0.25	40	RMQ09-06
Sida echinocarpa	0.1	70	RMQ09-07
Solanum cleistogamum	0.1	30	RMQ09R-03
Solanum diversiflorum	0.1	50	
Solanum ellipticum	0.1	30	
Sporobolus australasicus	0.1	10	
Streptoglossa bubakii	0.1	80	RMQ09-11
Trachymene oleracea	0.1	90	
Trianthema triquetra	0.1	3	
Tribulus astrocarpus	0.1	1	RMQ09-14
Tribulus macrocarpus	0.1	15	
Tribulus platypterus	0.1	3	RMQ09-12
Trigastrotheca molluginea	0.1	10	
Triodia wiseana	40	90	
Triumfetta clementii	0.1	30	RMQ03-04=



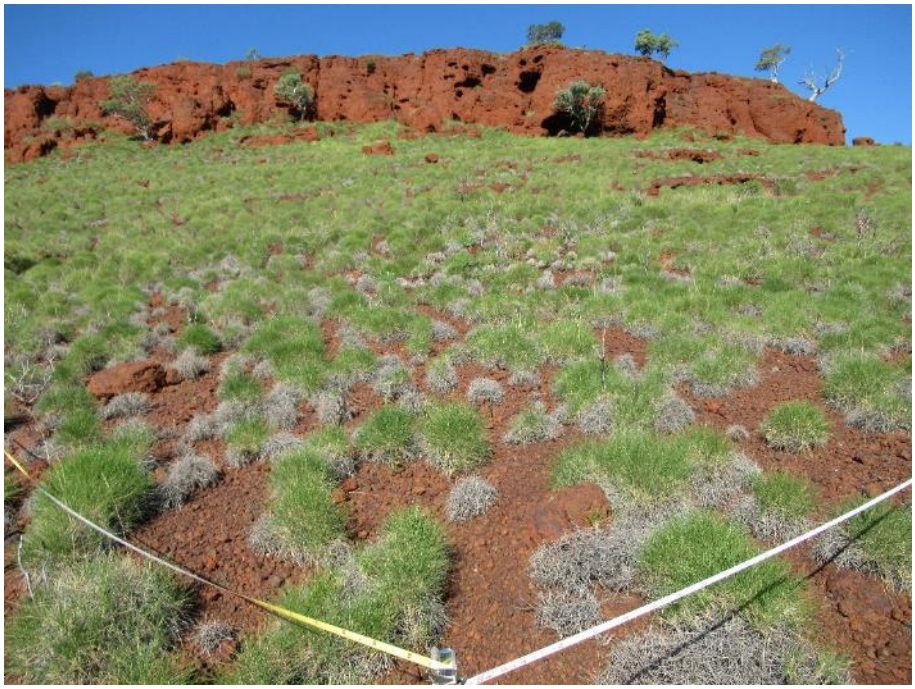
Site	**RMQ10**				
Described by	CG	Date	21/06/2021	Type	Quadrat 50 x 50
Season	Excellent				
Zone	50 K	Easting/Northing		398914.52 mE, 7593588.7 mS	
Habitat	Gently undulating plain				
Soil	SandyLoam				
Rock Type	Ironstone				
Vegetation	*Acacia bivenosa* and *Acacia* spp. Mid Open Shrubland over *Ptilotus* spp. and *Senna* spp. Low Sparse Shrubland over *Triodia wiseana* Hummock Grassland				
Veg Condition	E				
Fire Age	> 10 years				

Taxon	Cover (%)	Height (cm)	Collection no.
Abutilon sp. Pilbara (W.R. Barker 2025)	0.1	100	
Acacia ancistrocarpa	0.1	400	
Acacia atkinsiana	0.5	200	
Acacia bivenosa	15	180	
Acacia inaequilatera	0.1	250	
Acacia synchronicia	0.1	80	
Amaranthus cuspidifolius	0.1	80	RMQ10R-01
Amaranthus cuspidifolius	0.1	65	RMQ10-16
Arivela viscosa	0.1	45	
Bonamia pannosa	0.1	15	RMQ10-03
Bulbostylis barbata	0.1	10	RMQ10-20
Corchorus tectus	0.1	30	RMQ10-06
Corymbia hamersleyana	0.1	500	
Cucumis variabilis	0.1	cr	
Dactyloctenium radulans	0.1	15	
Dolichocarpa crouchiana	0.1	20	

Taxon	Cover (%)	Height (cm)	Collection no.
Dysphania kalpari	0.1	30	
Dysphania rhadinostachya subsp. *rhadinostachya*	0.1	40	RMQ10-27
Eragrostis dielsii	0.1	10	
Euphorbia boophthona	0.2	150	RMQ10-01
Euphorbia vaccaria var. *vaccaria*	0.1	30	RMQ10-23
Evolvulus alsinoides var. *decumbens*	0.1	25	RMQ02-14=
Evolvulus alsinoides var. *villosicalyx*	0.1	15	
Goodenia forrestii	0.1	30	RMQ10-05
Goodenia microptera	0.1	25	RMQ02-16=
Goodenia tenuiloba sens. lat.	0.1	40	RMQ10-19
Gossypium australe	0.1	50	RMQ10-14
Haloragis gossei	0.1	30	RMQ02-09=
Hibiscus brachychlaenus	0.1	60	RMQ10-30
Hibiscus sturtii var. *campylochlamys*	0.1	20	RMQ10-12
Indigofera monophylla	0.1	40	RMQ10-13
Ipomoea muelleri	0.2	cr	RMQ10-08
Isotropis atropurpurea	0.1	40	RMQ10-25
Jasminum didymum subsp. *lineare*	0.2	cr	RMQ10-04
Notoleptopus decaisnei	0.1	30	RMQ10-10
Paspalidium clementii	0.1	25	RMQ02-03=
Phyllanthus erwinii	0.1	20	RMQ10-17
Pluchea ? tetranthera	0.1	40	RMQ10R-02
Polycarpaea corymbosa	0.1	25	RMQ10-26
Portulaca oleracea	0.1	20	
Pterocaulon sphacelatum	0.1	40	RMQ02-18=
Ptilotus astrolasius	0.5	30	RMQ02=
Ptilotus auriculifolius	0.1	40	RMQ10-29
Ptilotus axillaris	0.3	20	
Ptilotus calostachyus	0.1	90	
Ptilotus exaltatus	0.1	80	
Rhynchosia minima	0.1	cr	
Senna artemisioides subsp. *oligophylla*	0.5	170	RMQ10-09
Senna glutinosa subsp. *pruinosa*	0.25	180	
Senna notabilis	0.5	30	
Sida arsiniata	0.1	30	
Solanum diversiflorum	0.1	45	
Solanum horridum	0.1	40	RMQ02-11=
Sporobolus australasicus	0.1	20	RMQ02=
Streptoglossa bubakii	0.1	80	RMQ18R=
Streptoglossa decurrens	0.1	50	
Stylobasium spathulatum	0.1	100	RMQ10-21
Trachymene oleracea	0.1	100	
Tribulus hirsutus	0.1	20	
Tribulus macrocarpus	0.1	15	RMQ10R-03
Tribulus platypterus	0.1	20	RMQ10-22
Trichodesma zeylanicum var. *zeylanicum*	0.1	100	
Trigastrotheca molluginea	0.1	10	
Triodia wiseana	55	90	
Triumfetta clementii	0.1	20	RMQ08=
Waltheria indica	0.1	40	

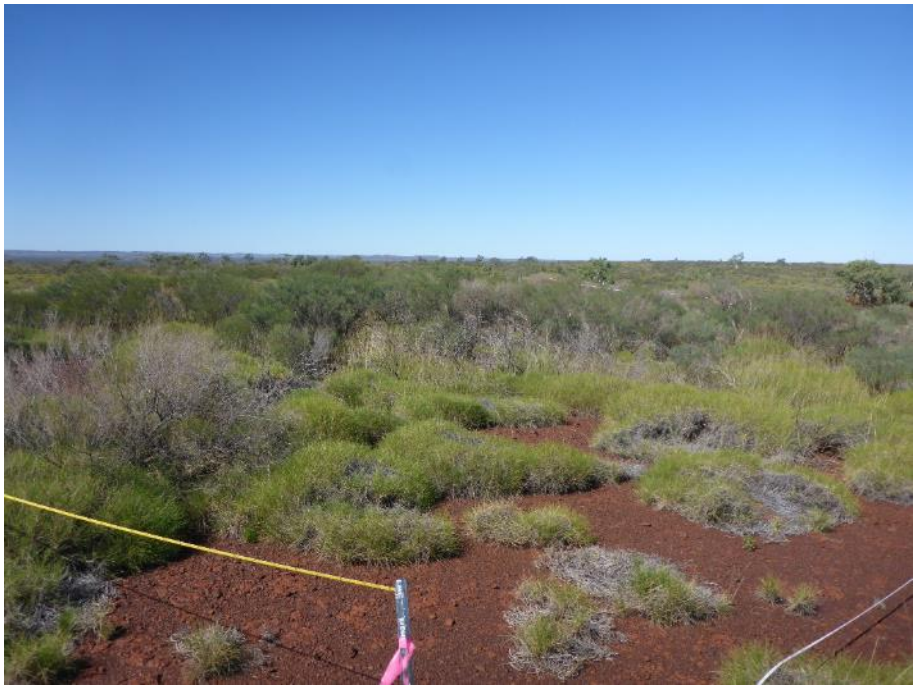
Site	**RMQ11**				
Described by	CG	Date	22/06/2021	Type	Quadrat 50 x 50
Season	Excellent				
Zone	50 K	Easting/Northing		397385.69 mE, 7593317.81 mS	
Habitat	Gently undulating Mesa crest				
Soil	SandyLoam				
Rock Type	Ironstone				
Vegetation	*Acacia arida* Mid Sparse Shrubland over *Triodia wiseana* Hummock Grassland				
Veg Condition	E				
Fire Age	> 10 years				

Taxon	Cover (%)	Height (cm)	Collection no.
Abutilon cunninghamii	0.1	25	RMQ11-01
Acacia arida	0.1	80	RMQ11R-01
Acacia arida	7	170	RMQ02-04=
Corchorus tectus	0.1	10	RMQ13R-02=
Dysphania rhadinostachya subsp. *rhadinostachya*	0.1	35	RMQ02-05=
Eriachne pulchella subsp. *dominii*	0.1	10	RMQ11-02
Euphorbia boophthona	0.1	30	RMQ10-01=
Evolvulus alsinoides var. *decumbens*	0.1	15	RMQ02-14=
Goodenia microptera	0.1	25	RMQ02-16=
Paspalidium clementii	0.1	15	RMQ02-13=
Polycarpaea holtzei	0.1	5	RMQ11-03
Ptilotus astrolasius	0.1	20	RMQ02=
Ptilotus axillaris	0.1	10	
Ptilotus clementii	0.1	40	RMQ02-08
Ptilotus exaltatus	0.1	10	
Ptilotus fusiformis	0.1	30	
Senna notabilis	0.1	20	
Sida sp. Pilbara (A.A. Mitchell PRP 1543)	0.1	30	RMQ11R-02
Sporobolus australasicus	0.1	15	
Trichodesma zeylanicum var. *zeylanicum*	0.1	40	
Triodia wiseana	35	80	RMQ02-01=



Site	**RMQ12**				
Described by	KM	Date	22/06/2021	Type	Quadrat 50 x 50
Season	Excellent				
Zone	50 K	Easting/Northing		397452 mE, 759375 mS	
Habitat	Rocky scree slope				
Soil	SandyLoam				
Rock Type	Ironstone				
Vegetation	*Acacia bivenosa* Mid Isolated Shrubs over *Triodia wiseana* Hummock Grassland				
Veg Condition	E				
Fire Age	5-10 years				

Taxon	Cover (%)	Height (cm)	Collection no.
Acacia arida	0.1	15	
Acacia bivenosa	0.1	70	
Arivela viscosa	0.2	60	
Corchorus tectus	0.3	40	RMQ12R-01
Dysphania rhadinostachya subsp. *inflata*	0.2	20	RMQ01-16=
Euphorbia vaccaria var. *vaccaria*	0.1	10	RMQ01-13=
Paspalidium clementii	0.1	10	RMQ01-23=
Polycarpaea holtzei	0.1	3	
Ptilotus astrolasius	0.1	40	
Ptilotus axillaris	0.1	10	
Ptilotus exaltatus	0.1	40	
Senna notabilis	0.1	20	
Sida sp. Pilbara (A.A. Mitchell PRP 1543)	0.1	15	RMQ12-01
Solanum diversiflorum	0.1	20	RMQ01-10=
Solanum horridum	0.1	30	RMQ01-08=
Triodia wiseana	45	60	



Site	**RMQ13**				
Described by	CG	Date	22/06/2021	Type	Quadrat 50 x 50
Season	Excellent				
Zone	50 K	Easting/Northing		397631.71 mE, 7593622.71 mS	
Habitat	Gently undulating Mesa crest				
Soil	SandyLoam				
Rock Type	Ironstone				
Vegetation	*Eucalyptus leucophloia* Low Isolated Trees over *Acacia arida* Mid Open Shrubland over *Triodia wiseana* Hummock Grassland				
Veg Condition	E				
Fire Age	> 5 years				

Taxon	Cover (%)	Height (cm)	Collection no.
Acacia arida	15	210	RMQ02-04=
Corchorus tectus	0.1	30	RMQ13R-02=
Corchorus tectus	0.1	45	RMQ13R-02
Dysphania rhadinostachya subsp. *rhadinostachya*	0.1	30	RMQ02-05=
Eriachne pulchella subsp. *dominii*	0.1	10	RMQ11-02=
Goodenia microptera	0.1	40	RMQ02-16=
Ptilotus astrolasius	0.1	5	
Ptilotus auriculifolius	0.1	30	RMQ13-02
Ptilotus axillaris	0.1	10	
Ptilotus clementii	0.1	70	RMQ13R-03
Ptilotus exaltatus	0.1	10	
Ptilotus polystachyus	0.1	30	RMQ02-08=
Senna notabilis	0.1	25	
Sida sp. Pilbara (A.A. Mitchell PRP 1543)	0.1	60	RMQ13R-01
Solanum cleistogamum	0.1	40	RMQ02-07=
Solanum diversiflorum	0.1	15	
Triodia wiseana	40	90	RMQ02-01=

Site	**RMQ14**				
Described by	KM	Date	23/06/2021	Type	Quadrat 20 x 125
Season	Excellent				
Zone	50 K	Easting/Northing		400859 mE, 7587227 mS	
Habitat	Creek				
Soil	SandyLoam in creek bed and LoamySand on creek floodplain				
Rock Type	-				
Vegetation	*Corymbia candida* subsp. *candida* and *Corymbia hamersleyana* Low Open Forest over A*cacia tumida* var. *pilbarensis* Tall Sparse Shrubland over *Indigofera boviperda* subsp. *boviperda*, *Rhynchosia minima* and *Sida* sp. L (A.M. Ashby 4202) and other mixed species Low Shrubland over *Triodia epactia* Sparse Hummock Grassland				
Veg Condition	VG				
Fire Age	~4 years				

Taxon	Cover (%)	Height (cm)	Collection no.
Abutilon cunninghamii	0.1	120	RMQ14-35
Abutilon lepidum	0.2	70	RMQ16=
Abutilon macrum	0.2	90	RMQ14-36
Abutilon otocarpum	0.1	70	RMQ14-27
Abutilon sp. Pilbara (W.R. Barker 2025)	0.3	50	RMQ14-02
Acacia ancistrocarpa	0.1	60	
Acacia atkinsiana	0.3	180	RMQ01-01=
Acacia bivenosa	0.1	150	RMQ03-01=
Acacia colei var. *colei*	0.3	300	RMQ14-26
Acacia inaequilatera	0.1	60	
Acacia pyrifolia var. *pyrifolia*	0.1	70	
Acacia synchronicia	0.2	120	

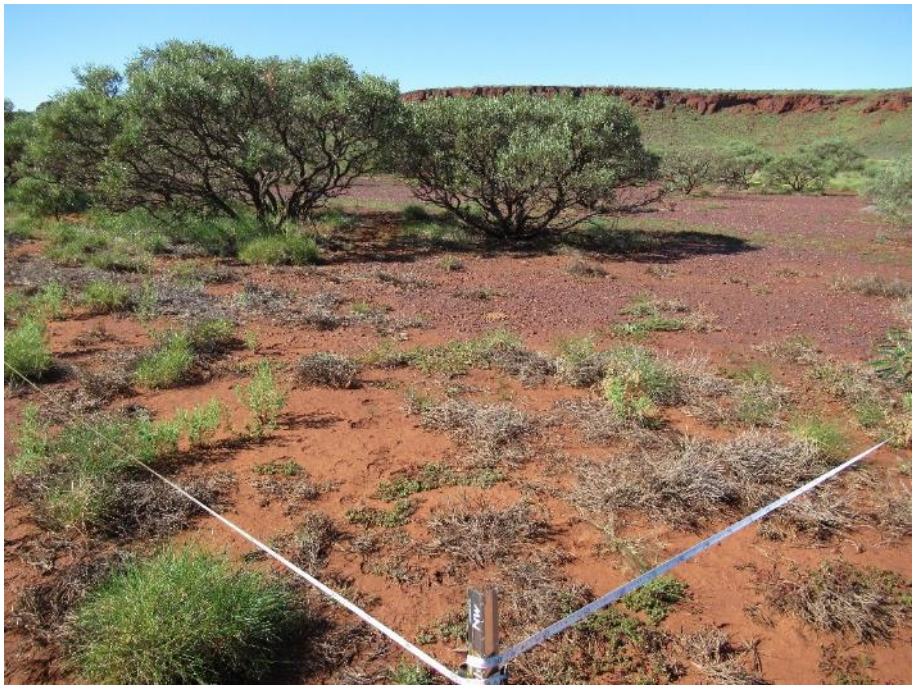
Taxon	Cover (%)	Height (cm)	Collection no.
Acacia tumida var. *pilbarensis*	3	250	
Afrohybanthus aurantiacus	0.3	35	
Alternanthera nodiflora	0.1	20	RMQ14-17
Amaranthus cuspidifolius	0.1	10	RMQ14-28
Arivela viscosa	0.3	50	
Boerhavia repleta	0.1	10	RMQ14-12
Bonamia pannosa	0.1	10	
Bulbostylis barbata	0.2	20	
Calandrinia ptychosperma	0.2	1	RMQ14-08
Calocephalus knappii	0.1	10	RMQ14R-03
Cenchrus setiger	0.2	40	
Corchorus tectus	1	50	RMQ09-19=
Corchorus tridens	0.1	20	RMQ01-28=
Corymbia candida subsp. *candida*	35	900	RMQ14-01=
Corymbia hamersleyana	2	600	
Cynodon dactylon	0.1	10	RMQ14-23
Cynodon prostratus	0.1	5	RMQ14R-06
Dysphania glomulifera subsp. *eremaea*	0.1	15	RMQ14-20
Dysphania rhadinostachya subsp. *inflata*	0.2	30	RMQ01-06=
Eragrostis cumingii	0.2	10	RMQ14-05
Eragrostis dielsii	0.1	10	RMQ16=
Eragrostis tenellula	0.1	30	RMQ14-31
Eremophila longifolia	0.1	45	
Euphorbia biconvexa	0.1	35	RMQ14-37
Euphorbia boophthona	0.1	35	RMQ09-01=
Euphorbia vaccaria var. *vaccaria*	0.1	1	RMQ14-21
Evolvulus alsinoides var. *decumbens*	0.1	40	RMQ14-15
Evolvulus alsinoides var. *villosicalyx*	0.1	20	
Fimbristylis elegans	0.1	10	RMQ14-29
Goodenia forrestii	0.1	30	RMQ09-13=
Goodenia lamprosperma	0.1	60	RMQ14R-02
Goodenia microptera	0.3	40	RMQ14R-04
Gossypium australe	2	90	
Hakea lorea subsp. *lorea*	0.1	70	
Hibiscus sturtii var. *campylochlamys*	0.3	30	RMQ14R-01
Indigofera boviperda subsp. *boviperda*	10	15	RMQ14-03=
Indigofera linnaei	0.1	10	RMQ14-16
Ipomoea muelleri	0.5	cr	
Isotropis atropurpurea	2	90	RMQ14-09
Jasminum didymum subsp. *lineare*	0.2	cr	RMQ09=
Malvastrum americanum	0.3	40	
Melhania oblongifolia	0.1	30	RMQ14-30
Notoleptopus decaisnei	0.1	40	RMQ16-05=
Paraneurachne muelleri	0.1	40	
Paspalidium clementii	0.1	40	RMQ14-33

Taxon	Cover (%)	Height (cm)	Collection no.
Perotis rara	0.1	10	
Phyllanthus erwinii	0.2	30	RMQ14-24
Phyllanthus maderaspatensis	0.1	1	RMQ14-18
Pluchea rubelliflora	0.1	20	RMQ14-25
Polycarpaea corymbosa	0.1	10	
Polymeria ambigua	0.1	cr	RMQ14-11
Portulaca oleracea	0.1	3	
Pterocaulon sphacelatum	0.1	40	RMQ14-19
Ptilotus appendiculatus	0.1	10	RMQ14-14
Ptilotus astrolasius	0.1	40	RMQ01-26=
Ptilotus axillaris	0.2	10	RMQ01-27=
Ptilotus exaltatus	0.1	90	
Rhynchosia minima	3	cr	
Senna artemisioides subsp. *oligophylla*	0.1	40	RMQ09-03=
Senna notabilis	0.1	40	
Setaria verticillata	0.1	20	RMQ14R-08
Sida arsiniata	0.2	40	RMQ09-06=
Sida sp. L (A.M. Ashby 4202)	3	40	RMQ14-06
Sida sp. Pilbara (A.A. Mitchell PRP 1543)	0.1	80	RMQ14R-07
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.2	180	RMQ14-10
Solanum diversiflorum	0.1	40	RMQ01-10=
Sporobolus australasicus	0.3	20	
Streptoglossa bubakii	0.1	35	RMQ14R-05
Synaptantha tillaeacea var. *tillaeacea*	0.2	1	RMQ14-07
Tephrosia uniovulata	0.1	70	
Trianthema pilosa	0.1	5	
Trianthema triquetra	0.1	1	
Trigastrotheca molluginea	0.1	15	
Triodia epactia	3	70	
Triumfetta clementii	0.1	30	RMQ09=
Triumfetta johnstonii	0.1	80	RMQ14-32
Vigna lanceolata var. *lanceolata*	0.1	cr	RMQ14-22
Waltheria indica	0.1	70	

Site	**RMQ15**				
Described by	BRM	Date	22/06/2021	Type	Quadrat 50 x 50
Season	Excellent				
Zone	50 K	Easting/Northing		397083.2 mE, 7593400.44 mS	
Habitat	Very gentle, west-facing, foot slopes below Mesa				
Soil	SandyLoam				
Rock Type	-				
Vegetation	*Acacia bivenosa* and *Acacia atkinsiana* Mid Sparse Shrubland over a mixed Low Sparse Shrubland / Forbland over *Triodia wiseana* Hummock Grassland				
Veg Condition	E				
Fire Age	Not recently burnt				

Taxon	Cover (%)	Height (cm)	Collection no.
Abutilon sp. Pilbara (W.R. Barker 2025)	0.1	40	
Acacia ancistrocarpa	0.1	220	
Acacia atkinsiana	0.2	170	RMQ15-05
Acacia bivenosa	2.5	170	
Arivela viscosa	0.1	60	
Boerhavia coccinea	0.1	15	RMQ15-12
Bonamia pannosa	0.1	12	RMQ05-10=
Bulbostylis barbata	0.1	10	
Corchorus tectus	0.1	40	RMQ15-06
Dysphania rhadinostachya subsp. *rhadinostachya*	0.3	45	RMQ15-02
Eriachne pulchella	0.1	12	
Euphorbia tannensis subsp. *eremophila*	0.1	60	RMQ05-09=
Euphorbia vaccaria var. *vaccaria*	0.1	10	RMQ15-03
Goodenia microptera	0.1	30	RMQ15-14

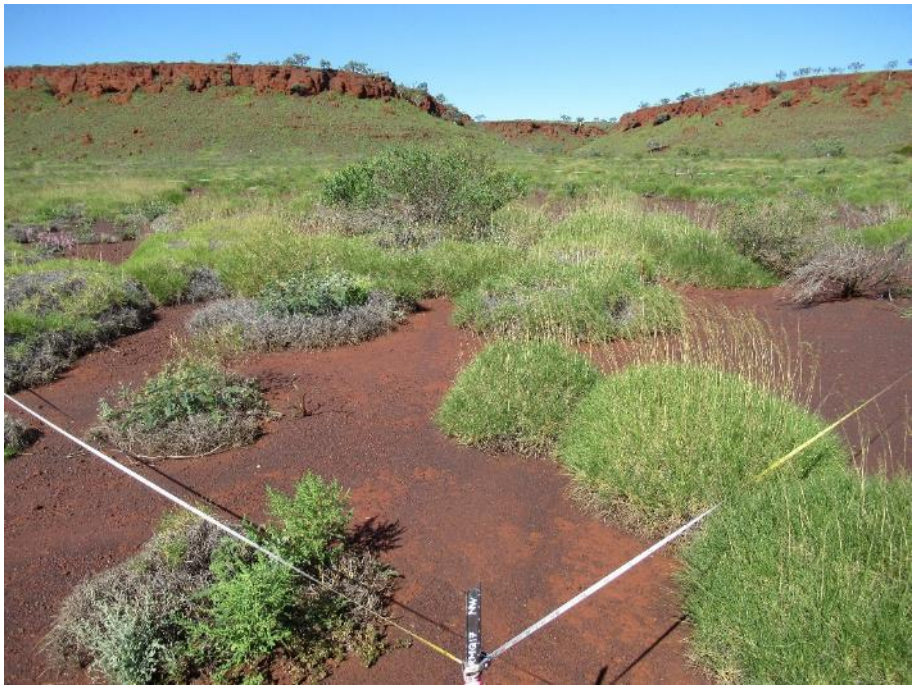
Taxon	Cover (%)	Height (cm)	Collection no.
Gossypium australe	0.1	80	
Hakea lorea subsp. *lorea*	0.1	150	
Haloragis gossei	0.1	20	RMQ05-10=
Paspalidium clementii	0.1	20	RMQ15-08
Polycarpaea holtzei	0.1	5	RMQ15-11
Portulaca oleracea	0.1	12	RMQ15-04
Ptilotus astrolasius	0.1	25	
Ptilotus auriculifolius	0.1	40	
Ptilotus calostachyus	0.1	40	
Ptilotus exaltatus	0.1	90	
Ptilotus incanus	0.1	20	RMQ15-13
Senna glutinosa subsp. *pruinosa*	0.1	180	
Senna glutinosa subsp. x *luerssenii*	0.1	120	
Senna notabilis	0.2	50	
Sida arsiniata	0.1	25	RMQ08-04=
Sida echinocarpa	0.1	20	RMQ08-05=
Solanum diversiflorum	0.1	30	
Sporobolus australasicus	0.1	20	
Streptoglossa ? bubakii	0.1	60	RMQ15R-01
Swainsona formosa	0.1	60	
Tribulus astrocarpus	0.1	3	
Tribulus hirsutus	0.1	10	RMQ15-07
Tribulus platypterus	0.1	10	RMQ08-11=
Trichodesma zeylanicum var. *zeylanicum*	0.1	100	
Trigastrotheca molluginea	0.1	5	
Triodia wiseana	50	100	
Triumfetta clementii	0.1	30	RMQ08-08=



Site	**RMQ16**				
Described by	KM	Date	22/06/2021	Type	Quadrat 50 x 50
Season	Excellent				
Zone	50 K	Easting/Northing		397509 mE, 7594373 mS	
Habitat	Lower slopes; stony undulating plain				
Soil	SandyClayLoam				
Rock Type	-				
Vegetation	*Acacia xiphophylla* Tall Open Shrubland over *Acacia synchronicia* Mid Sparse Shrubland over a mixed Low Open Shrubland / Forbland over *Triodia epactia* Sparse Hummock Grassland				
Veg Condition	E				
Fire Age	> 10 years				

Taxon	Cover (%)	Height (cm)	Collection no.
Abutilon lepidum	0.1	70	RMQ16-07
Acacia synchronicia	0.5	160	RMQ16-02
Acacia xiphophylla	12	300	RMQ16-01
Amaranthus cuspidifolius	0.1	20	RMQ16-10
Arivela viscosa	0.2	40	
Cucumis variabilis	0.1	cr	
Cynodon prostratus	3	5	RMQ16-04
Dysphania rhadinostachya subsp. *inflata*	0.3	30	RMQ01-06
Eragrostis dielsii	0.1	10	RMQ16-12
Eriachne pulchella subsp. *dominii*	0.5	15	RMQ01-07=
Gomphrena cunninghamii	0.1	20	RMQ16-06
Goodenia forrestii	0.1	20	RMQ09-13=
Goodenia microptera	0.1	20	RMQ01-12=
Hibiscus sturtii var. *campylochlamys*	0.1	15	RMQ09-20=

Taxon	Cover (%)	Height (cm)	Collection no.
Maireana planifolia	0.1	70	RMQ16-08
Malvastrum americanum	0.1	30	
Notoleptopus decaisnei	0.1	35	RMQ16-05
Paspalidium clementii	0.3	20	RMQ16-13
Portulaca oleracea	1	10	
Ptilotus astrolasius	0.1	30	RMQ01-26=
Ptilotus auriculifolius	0.1	35	RMQ16-11
Ptilotus axillaris	0.2	10	RMQ01-27=
Ptilotus exaltatus	0.2	70	
Ptilotus fusiformis	0.1	40	RMQ01-05=
Salsola australis	0.1	40	
Senna notabilis	0.1	40	
Sida aff. *fibulifera*	0.1	30	RMQ16-14
Solanum diversiflorum	0.1	40	RMQ01-10=
Solanum horridum	0.1	30	RMQ01-08=
Sporobolus australasicus	0.5	20	
Streptoglossa bubakii	0.1	40	RMQ09-11=
Trianthema triquetra	2	10	
Tribulus astrocarpus	0.1	1	RMQ09-14=
Tribulus hirsutus	0.1	3	RMQ16-04
Tribulus macrocarpus	0.1	1	RMQ16-09
Triodia epactia	6	40	RMQ16-03
Triodia wiseana	2	70	RMQ01-03=



Site	**RMQ17**				
Described by	KM	Date	22/06/2021	Type	Quadrat 50 x 50
Season	Excellent				
Zone	50 K	Easting/Northing		397209 mE, 7593872 mS	
Habitat	Footslopes below mesa				
Soil	SandyClayLoam				
Rock Type	Ironstone detrital				
Vegetation	*Acacia bivenosa* Mid Sparse Shrubland to Isolated Shrubs over a mixed Low Sparse Shrubland / Forbland over *Triodia wiseana* Hummock Grassland				
Veg Condition	E				
Fire Age	5-8 years				

Taxon	Cover (%)	Height (cm)	Collection no.
Abutilon sp. Pilbara (W.R. Barker 2025)	0.1	20	RMQ17-04
Acacia ancistrocarpa	0.1	120	
Acacia atkinsiana	0.1	170	RMQ01-01=
Acacia bivenosa	1	140	RMQ03-01=
Acacia inaequilatera	0.1	150	
Aristida holathera var. *holathera*	0.1	40	
Arivela viscosa	1.5	50	
Boerhavia coccinea	0.1	30	RMQ17-02
Bonamia pannosa	0.1	1	RMQ17-01
Bonamia pilbarensis	0.1	2	RMQ01-18=
Corchorus tectus	0.5	50	RMQ17R-05
Dysphania rhadinostachya subsp. *inflata*	1.5	40	RMQ01-06=
Eriachne pulchella subsp. *dominii*	0.1	10	RMQ01-07=
Euphorbia boophthona	0.1	40	RMQ09-01=

Taxon	Cover (%)	Height (cm)	Collection no.
Euphorbia vaccaria var. *vaccaria*	0.2	2	RMQ01-13=
Goodenia microptera	0.1	35	RMQ01-12=
Heliotropium heteranthum	0.1	1	
Hibiscus brachychlaenus	0.1	35	RMQ17R-04
Hibiscus sturtii var. *campylochlamys*	0.1	30	RMQ17R-02
Notoleptopus decaisnei	0.1	30	RMQ16-05=
Paraneurachne muelleri	0.1	45	
Portulaca oleracea	0.1	2	
Ptilotus aervoides	0.1	1	RMQ17-03
Ptilotus astrolasius	0.3	40	RMQ01-26=
Ptilotus auriculifolius	0.1	40	RMQ16-11=
Ptilotus axillaris	0.1	10	RMQ01-27=
Ptilotus calostachyus	0.1	70	
Ptilotus exaltatus	0.3	70	
Ptilotus fusiformis	0.1	40	RMQ01-05=
Senna artemisioides subsp. *oligophylla*	0.1	50	RMQ09-03=
Senna notabilis	1	40	
Sida arsiniata	0.1	30	RMQ09-06=
Sida echinocarpa	0.1	40	RMQ09-07=
Sida sp. Pilbara (A.A. Mitchell PRP 1543)	0.1	40	RMQ01-17=
Solanum diversiflorum	0.1	40	RMQ01-10=
Tribulus hirsutus	0.1	20	RMQ16-04=
Tribulus macrocarpus	0.2	5	RMQ16-09=
Trigastrotheca molluginea	0.1	10	
Triodia wiseana	35	90	RMQ01-03=
Triumfetta chaetocarpa	0.1	40	RMQ17-05
Triumfetta clementii	0.1	40	RMQ03-04=
Waltheria indica	0.1	40	

Site	**RMQ18**				
Described by	BRM	Date	22/06/2021	Type	Quadrat 50 x 50
Season	Excellent				
Zone	50 K	Easting/Northing		396779.52 mE, 7593139.67 mS	
Habitat	Plain				
Soil	ClayLoam				
Rock Type	Ironstone pea gravel present				
Vegetation	*Acacia atkinsiana*, *Acacia ancistrocarpa* and *Acacia bivenosa* Mid Sparse Shrubland over a mixed Low Sparse Shrubland over *Triodia epactia* Hummock Grassland				
Veg Condition	E				
Fire Age	Not recently burnt				

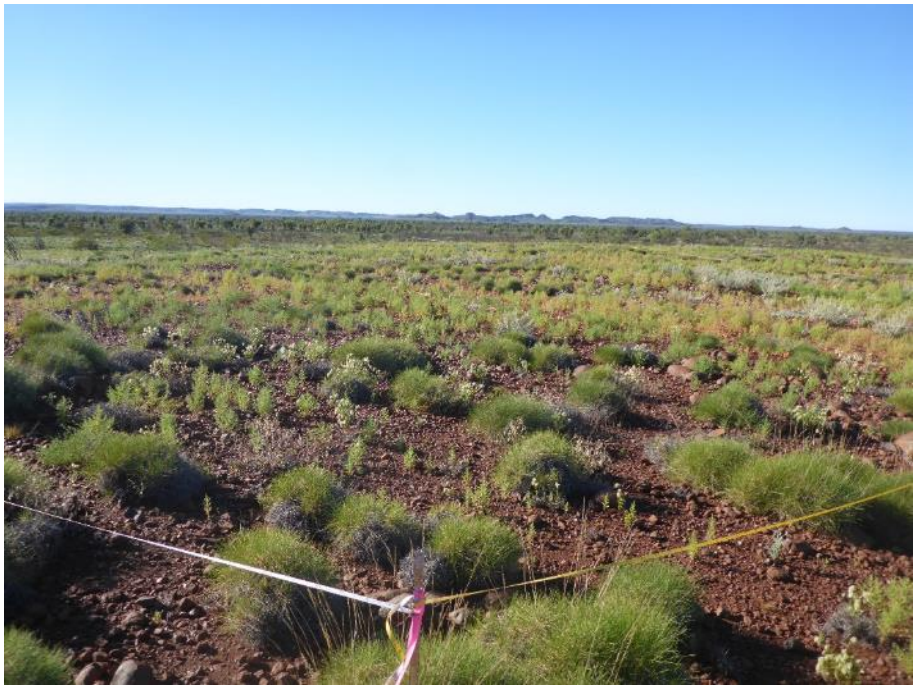
Taxon	Cover (%)	Height (cm)	Collection no.
Abutilon cunninghamii	0.1	60	RMQ18-11
Abutilon lepidum	0.1	120	RMQ18-16
Abutilon sp. Pilbara (W.R. Barker 2025)	0.1	45	
Acacia ancistrocarpa	2.5	320	
Acacia atkinsiana	5	350	
Acacia bivenosa	0.5	220	
Acacia synchronicia	1	220	
Alternanthera nana	0.1	20	RMQ18-12
Amaranthus cuspidifolius	0.1	40	RMQ18-07
Amyema preissii	0.1	Parasite	RMQ18R-05
Arivela viscosa	5	60	
Boerhavia coccinea	0.1	40	
Bonamia pannosa	0.1	30	RMQ05-10=
Bulbostylis barbata	0.1	20	
Cheilanthes sieberi subsp. *sieberi*	0.1	12	RMQ18-04
Corchorus tectus	0.3	45	RMQ18-10

Taxon	Cover (%)	Height (cm)	Collection no.
Cucumis variabilis	0.1	30	RMQ18-18
Cullen pogonocarpum	0.1	40	RMQ18-13
Cymbopogon obtectus	0.5	110	
Dysphania kalpari	0.1	20	RMQ18-15
Dysphania rhadinostachya subsp. *rhadinostachya*	0.3	30	RMQ15-02=
Eriachne pulchella subsp. *dominii*	0.1	20	
Euphorbia boophthona	0.1	40	RMQ18-02
Euphorbia trigonosperma	0.1	60	RMQ18R-04
Euphorbia vaccaria var. *vaccaria*	0.1	3	RMQ15-03=
Evolvulus alsinoides var. *villosicalyx*	0.1	30	
Gomphrena affinis	0.1	35	RMQ18-03
Gomphrena cunninghamii	0.1	15	
Goodenia forrestii	0.1	30	RMQ18-20
Goodenia microptera	0.1	45	RMQ18R-01
Gossypium australe	0.1	20	
Hibiscus sturtii var. *campylochlamys*	0.1	40	RMQ18-05
Notoleptopus decaisnei	0.1	30	
Paspalidium clementii	0.5	25	RMQ15-08=
Phyllanthus erwinii	0.2	30	RMQ08-01=
Polycarpaea corymbosa	0.1	15	
Portulaca oleracea	0.1	3	RMQ15-04=
Pterocaulon sphacelatum	0.1	60	RMQ18-01
Ptilotus astrolasius	0.1	40	
Ptilotus auriculifolius	0.1	35	
Ptilotus axillaris	0.1	20	
Ptilotus exaltatus	0.5	80	
Ptilotus fusiformis	0.1	50	
Rhynchosia minima	0.1	30	
Senna artemisioides subsp. *oligophylla*	0.1	110	RMQ18-06
Senna notabilis	0.1	20	
Sida arsiniata	0.1	70	
Sida echinocarpa	0.1	140	RMQ18-19
Sida sp. Pilbara (A.A. Mitchell PRP 1543)	0.1	20	RMQ18R-02
Solanum cleistogamum	0.1	35	RMQ18-14
Solanum diversiflorum	0.1	35	
Sporobolus australasicus	0.1	30	
Streptoglossa ? bubakii	0.1	35	RMQ18R-03
Streptoglossa decurrens	0.1	35	
Tephrosia uniovulata	0.1	70	RMQ18-08
Trachymene oleracea	0.1	80	
Trianthema triquetra	0.1	10	
Tribulus astrocarpus	0.1	3	
Tribulus macrocarpus	0.1	10	
Trichodesma zeylanicum var. *zeylanicum*	0.2	140	
Trigastrotheca molluginea	0.1	10	
Triodia epactia	55	70	RMQ04-02=
Triodia wiseana	1.5	70	
Triumfetta chaetocarpa	0.1	45	RMQ18-21
Triumfetta clementii	0.3	35	RMQ08-08=
Waltheria indica	0.1	60	

Site	**RMQ19**				
Described by	BRM	Date	23/06/2021	Type	Quadrat 50 x 50
Season	Excellent				
Zone	50 K	Easting/Northing		400467.95 mE, 7587388.8 mS	
Habitat	Plain				
Soil	ClayLoam				
Rock Type	Mantle of Ironstone gravel, pebbles, cobbles				
Vegetation	*Acacia xiphophylla* Tall Sparse Shrubland over *Acacia synchronicia* Mid Isolated Shrubs over a mixed Low Open Shrubland / Forbland over *Triodia epactia* Sparse Hummock Grassland				
Veg Condition	E				
Fire Age	>6years				

Taxon	Cover (%)	Height (cm)	Collection no.
Abutilon lepidum	0.1	70	RMQ19-12
Abutilon otocarpum	0.1	25	
Abutilon sp. Pilbara (W.R. Barker 2025)	0.1	30	
Acacia synchronicia	0.5	150	
Acacia xiphophylla	8	320	
Aerva javanica	0.1	45	
Amaranthus cuspidifolius	0.1	35	RMQ19-10
Arivela viscosa	0.1	60	
Bulbostylis barbata	0.1	15	
Chenopodiaceae sp.	0.1	10	RMQ19-05
Corchorus tectus	0.1	20	RMQ19R-01
Cymbopogon obtectus	0.1	50	
Cynodon prostratus	0.1	5	RMQ19-03
Dysphania kalpari	0.1	15	RMQ19-07

Taxon	Cover (%)	Height (cm)	Collection no.
Dysphania rhadinostachya subsp. *rhadinostachya*	2.5	30	RMQ19-02
Enchylaena tomentosa	0.1	60	
Eragrostis dielsii	0.1	10	RMQ19-11
Eriachne pulchella	0.1	12	
Euphorbia tannensis subsp. *eremophila*	0.1	45	RMQ19-09
Euphorbia vaccaria var. *vaccaria*	0.1	5	RMQ15-03=
Goodenia forrestii	0.1	35	RMQ18-20=
Goodenia microptera	0.1	30	RMQ19R-02
Gossypium australe	0.1	25	
Heliotropium heteranthum	0.1	1	RMQ19-04
Hibiscus sturtii var. *campylochlamys*	0.1	15	RMQ18-05=
Maireana planifolia	0.1	30	
Malvastrum americanum	0.1	60	
Notoleptopus decaisnei	0.1	30	
Paspalidium clementii	0.1	25	RMQ15-08=
Phyllanthus erwinii	0.1	10	
Polycarpaea corymbosa	0.1	10	RMQ19-06
Polycarpaea holtzei	0.1	4	RMQ15-11=
Portulaca oleracea	0.1	3	RMQ15-04=
Ptilotus astrolasius	0.1	20	
Ptilotus auriculifolius	0.1	40	
Ptilotus axillaris	0.1	15	RMQ05-02=
Ptilotus calostachyus	0.1	80	
Ptilotus exaltatus	0.1	35	
Ptilotus fusiformis	0.1	20	
Salsola australis	0.1	30	
Sclerolaena costata	0.1	35	RMQ19R-05
Sclerolaena densiflora	0.1	20	RMQ19R-04
Senna glutinosa subsp. x *luerssenii*	0.1	90	
Senna notabilis	0.1	20	
Sida arsiniata	0.1	20	RMQ08-04=
Sida echinocarpa	0.1	10	RMQ08-05=
Sida sp. Pilbara (A.A. Mitchell PRP 1543)	0.1	20	RMQ19R-03
Solanum cleistogamum	0.1	35	RMQ19-13
Solanum diversiflorum	0.1	30	
Sporobolus australasicus	0.1	20	
Streptoglossa decurrens	0.1	30	
Trianthema triquetra	0.3	15	RMQ19-01
Tribulus astrocarpus	0.1	1	
Tribulus macrocarpus	0.1	5	
Trichodesma zeylanicum var. *zeylanicum*	0.1	80	
Trigastrotheca molluginea	0.1	12	
Triodia epactia	0.5	40	
Triodia wiseana	0.1	40	
Triumfetta clementii	0.1	35	RMQ08-08=



Site	**RMQ20**				
Described by	CG	Date	23/06/2021	Type	Quadrat 50 x 50
Season	Excellent				
Zone	50 K	Easting/Northing		400177.53 mE, 7586721.23 mS	
Habitat	Low stony hill crest				
Soil	SandyLoam				
Rock Type	Basalt (round boulders and stones)				
Vegetation	*Acacia* spp. Mid Isolated Shrubs over *Dysphania rhadinostachya*, *Sida echinocarpa*, *Corchorus tectus* and *Ptilotus auriculifolius* Low Open Shrubland over *Triodia wiseana* Open Hummock Grassland				
Veg Condition	E				
Fire Age	< 2 years				

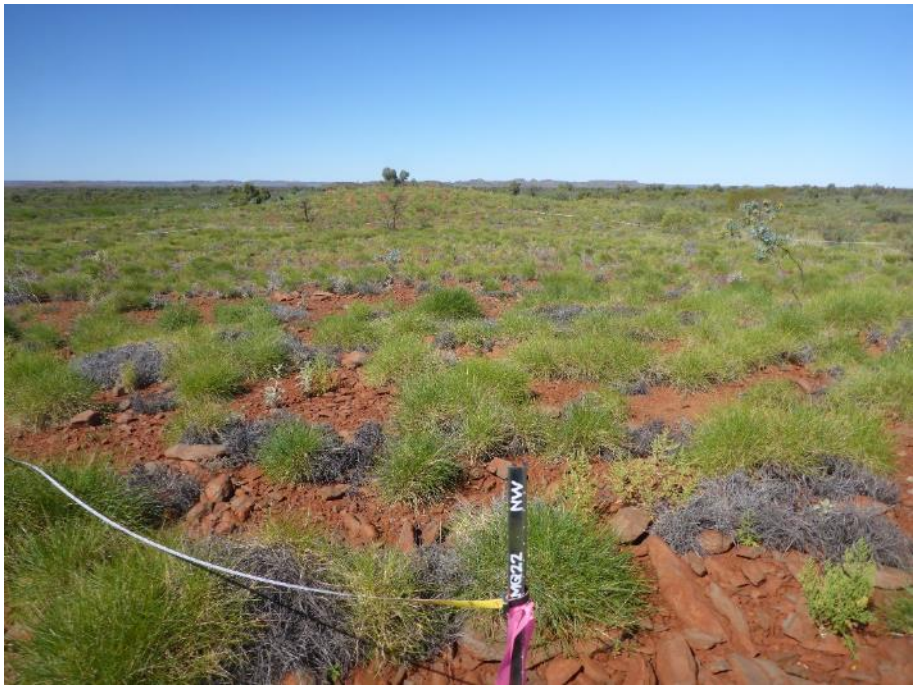
Taxon	Cover (%)	Height (cm)	Collection no.
Abutilon sp. Pilbara (W.R. Barker 2025)	0.1	20	RMQ20-20
Acacia ancistrocarpa	0.1	50	RMQ20-17
Acacia atkinsiana	0.1	150	
Acacia inaequilatera	0.1	150	
Acacia synchronicia	0.1	60	RMQ20-23
Amaranthus cuspidifolius	0.1	25	RMQ20R-04
Aristida holathera var. *holathera*	0.1	25	RMQ20-09
Arivela viscosa	0.1	90	
Boerhavia coccinea	0.1	40	RMQ20-10
Bonamia pilbarensis	0.1	10	RMQ20-14
Bulbostylis barbata	0.25	15	
Calandrinia ptychosperma	0.1	10	RMQ20-12
Corchorus tectus	1.5	50	RMQ20-16

Taxon	Cover (%)	Height (cm)	Collection no.
Dolichocarpa crouchiana	0.1	25	
Dysphania kalpari	0.1	10	RMQ20R-11
Dysphania rhadinostachya	7	50	
Eragrostis crateriformis	0.1	30	RMQ20R-07
Euphorbia boophthona	0.1	30	RMQ20R-05
Euphorbia vaccaria var. *vaccaria*	0.1	10	RMQ20-04
Evolvulus alsinoides var. *villosicalyx*	0.1	20	RMQ20-24
Fimbristylis dichotoma	0.1	20	RMQ20-07
Gomphrena cunninghamii	0.1	20	
Goodenia forrestii	0.1	30	RMQ20-22
Goodenia microptera	0.1	35	RMQ02-16=
Gossypium australe	0.1	60	
Heliotropium heteranthum	0.1	5	RMQ20R-09
Hibiscus sturtii var. *campylochlamys*	0.1	20	RMQ20R-12
Indigofera linifolia	0.1	35	RMQ20-18
Paspalidium clementii	0.1	15	RMQ20R-01
Phyllanthus erwinii	0.1	15	RMQ20-11
Polycarpaea corymbosa	0.1	25	RMQ20-06
Polycarpaea holtzei	0.25	10	RMQ20-05
Portulaca oleracea	0.1	5	RMQ20-03
Pterocaulon sphacelatum	0.1	20	RMQ20R-08
Ptilotus aervoides	0.1	10	RMQ20-19
Ptilotus astrolasius	0.1	45	
Ptilotus astrolasius	0.1	35	RMQ20R-13
Ptilotus auriculifolius	1	60	RMQ20-01
Ptilotus clementii	0.1	20	RMQ02-08=
Ptilotus exaltatus	0.1	60	
Senna artemisioides subsp. *oligophylla*	0.1	70	
Senna glutinosa subsp. *pruinosa*	0.1	80	
Senna notabilis	0.1	30	
Sida arsiniata	0.1	50	RMQ20-15
Sida echinocarpa	2	90	RMQ20-13
Solanum diversiflorum	0.1	40	
Sporobolus australasicus	0.1	20	RMQ20R-10
Sporobolus australasicus	0.1	25	
Streptoglossa bubakii	0.1	40	RMQ20R-03
Synaptantha tillaeacea var. *tillaeacea*	0.1	10	RMQ20-08
Tephrosia sp. NW Eremaean (S. van Leeuwen et al. PBS	0.1	30	RMQ20R-06
Trianthema triquetra	0.1	10	RMQ20-21
Tribulus hirsutus	0.1	10	
Trigastrotheca molluginea	0.1	10	
Triodia wiseana	8	60	
Triumfetta clementii	0.1	30	
Vachellia farnesiana	0.1	100	RMQ20-25

Site	**RMQ21**				
Described by	BRM	Date	23/06/2021	Type	Quadrat 50 x 50
Season	Excellent				
Zone	50 K	Easting/Northing		399930.05 mE, 7586906.1 mS	
Habitat	Plain				
Soil	ClayLoam				
Rock Type	-				
Vegetation	*Corymbia candida* subsp. *candida* Low Isolated Trees over *Acacia atkinsiana*, *Acacia ancistrocarpa* and *Acacia sclerosperma* subsp. *sclerosperma* Tall Shrubland over mixed species Low Sparse Shrubland over *Triodia epactia* Hummock Grassland				
Veg Condition	E				
Fire Age	>10yrs since fire				

Taxon	Cover (%)	Height (cm)	Collection no.
Abutilon lepidum	0.1	130	RMQ19-12=
Abutilon sp. Pilbara (W.R. Barker 2025)	0.1	100	RMQ21R-01
Acacia ancistrocarpa	3	250	
Acacia atkinsiana	45	380	
Acacia inaequilatera	0.1	400	
Acacia sclerosperma subsp. *sclerosperma*	1.5	280	RMQ21-15
Acacia sp.	0.1	60	RMQ21-07
Acacia synchronicia	1	230	
Alternanthera nana	0.1	25	RMQ21-04
Amaranthus cuspidifolius	0.1	30	RMQ21-09
Arivela viscosa	0.1	120	
Boerhavia coccinea	0.1	30	RMQ15-12=
Bonamia erecta	0.1	50	RMQ21R-07

Taxon	Cover (%)	Height (cm)	Collection no.
Bonamia pannosa	0.1	30	RMQ05-10=
Cenchrus setiger	0.1	70	RMQ21-14
Chrysopogon fallax	0.1	60	RMQ21-13
Corchorus tectus	1	70	RMQ19-14=
Corymbia candida subsp. *candida*	1	500	RMQ21-11
Dysphania kalpari	0.1	20	RMQ19-07=
Dysphania rhadinostachya subsp. *rhadinostachya*	1	45	RMQ21-06
Euphorbia biconvexa	0.1	30	RMQ21-05
Euphorbia tannensis subsp. *eremophila*	0.1	30	RMQ19-09=
Euphorbia vaccaria var. *vaccaria*	0.1	10	RMQ15-03=
Evolvulus alsinoides var. *villosicalyx*	0.1	25	
Goodenia forrestii	0.1	45	
Goodenia microptera	0.1	40	RMQ21R-02
Gossypium australe	0.1	150	
Hakea lorea subsp. *lorea*	0.1	190	
Hibiscus sturtii var. *campylochlamys*	0.1	50	RMQ18-05=
Indigofera boviperda subsp. *boviperda*	0.3	50	RMQ04-17=
Ipomoea muelleri	0.3	20	RMQ21-03
Malvastrum americanum	0.1	60	
Notoleptopus decaisnei	0.1	50	
Paraneurachne muelleri	0.1	50	
Paspalidium clementii	0.1	30	RMQ15-08=
Phyllanthus erwinii	0.1	25	RMQ21-02
Polycarpaea corymbosa	0.1	15	
Portulaca oleracea	0.1	15	RMQ15-04=
Pterocaulon sphacelatum	0.1	50	
Ptilotus appendiculatus	0.1	30	RMQ21-01
Ptilotus astrolasius	0.2	50	
Ptilotus exaltatus	0.1	60	
Senna artemisioides subsp. *oligophylla*	0.1	90	RMQ18-06
Senna notabilis	0.1	70	
Sida arsiniata	0.1	20	RMQ08-04=
Sida echinocarpa	0.1	50	
Sida sp. L (A.M. Ashby 4202)	0.1	45	RMQ21-10
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	170	
Solanum cleistogamum	0.1	40	RMQ21-08
Sporobolus australasicus	0.1	20	
Streptoglossa bubakii	0.1	60	RMQ21R-05
Streptoglossa decurrens	0.1	80	RMQ21R-04
Striga curviflora	0.1	25	RMQ21R-06
Trianthema triquetra	0.1	15	
Triodia epactia	60	80	
Triumfetta chaetocarpa	0.1	40	RMQ18-21=
Triumfetta clementii	0.1	40	
Waltheria indica	0.5	45	



Site	**RMQ22**				
Described by	CG	Date	23/06/2021	Type	Quadrat 50 x 50
Season	Excellent				
Zone	50 K	Easting/Northing		400584.12 mE, 7588236.92 mS	
Habitat	Crest and slopes of low stony hill				
Soil	SandyLoam				
Rock Type	Basalt				
Vegetation	*Acacia* spp. Mid Isolated Shrubs over a mixed Low Open to Sparse Shrubland over *Triodia wiseana* Open Hummock Grassland				
Veg Condition	E				
Fire Age	> 10 years				

Taxon	Cover (%)	Height (cm)	Collection no.
Abutilon sp. Pilbara (W.R. Barker 2025)	0.1	25	RMQ20-20=
Acacia atkinsiana	1.5	170	
Acacia inaequilatera	0.1	150	
Acacia synchronicia	0.1	60	RMQ20-23=
Arivela viscosa	0.1	65	
Bonamia pilbarensis	0.1	5	RMQ20-14=
Bulbostylis barbata	0.2	20	RMQ22-02
Calandrinia ptychosperma	0.1	5	RMQ20-12=
Corchorus sidoides subsp. *sidoides*	0.1	30	RMQ22-10
Corchorus tectus	0.1	40	RMQ20-16=
Cynodon prostratus	0.1	5	RMQ22-13
Dolichocarpa crouchiana	0.1	25	
Dysphania rhadinostachya	0.3	50	RMQ22R-01
Eriachne aristidea	0.1	35	

Taxon	Cover (%)	Height (cm)	Collection no.
Eriachne pulchella subsp. *dominii*	0.1	10	RMQ22-08
Euphorbia boophthona	0.1	20	RMQ22-05
Euphorbia vaccaria var. *vaccaria*	0.1	10	RMQ20-04=
Evolvulus alsinoides var. *villosicalyx*	0.1	25	
Fimbristylis dichotoma	0.2	40	RMQ20-07=
Goodenia forrestii	0.1	10	
Goodenia microptera	0.1	25	RMQ22-01
Gossypium australe	0.1	80	
Hakea lorea subsp. *lorea*	0.1	190	RMQ22-07
Heliotropium heteranthum	0.1	4	RMQ22-11
Hibiscus sturtii var. *campylochlamys*	0.1	15	RMQ22-03
Paspalidium clementii	0.1	25	RMQ22-09
Phyllanthus erwinii	0.1	25	RMQ20-11=
Polycarpaea corymbosa	0.2	20	RMQ20-06=
Polycarpaea holtzei	0.1	10	RMQ20-05=
Polycarpaea longiflora	0.1	15	
Portulaca oleracea	0.1	10	RMQ20-03=
Pterocaulon sphacelatum	0.1	70	RMQ22R-02
Ptilotus astrolasius	0.1	40	
Ptilotus auriculifolius	0.1	35	RMQ20-01=
Ptilotus axillaris	0.1	10	
Ptilotus calostachyus	0.1	60	
Ptilotus clementii	0.1	50	
Ptilotus exaltatus	0.1	40	
Ptilotus fusiformis	0.1	35	
Salsola australis	0.1	25	
Senna glutinosa subsp. *pruinosa*	0.25	200	
Senna glutinosa subsp. x *luerssenii*	0.1	180	
Senna notabilis	0.1	30	
Sida arsiniata	0.1	40	RMQ20-15=
Sida echinocarpa	0.1	50	RMQ20-13=
Solanum diversiflorum	0.1	40	
Sporobolus australasicus	0.1	10	
Streptoglossa bubakii	0.1	40	RMQ22R-03
Streptoglossa decurrens	0.1	25	
Synaptantha tillaeacea var. *tillaeacea*	0.1	10	RMQ20-08=
Trianthema triquetra	0.1	10	
Tribulus macrocarpus	0.1	10	RMQ22-12
Trigastrotheca molluginea	0.1	5	
Triodia epactia	1	70	
Triodia wiseana	25	50	
Triumfetta clementii	0.2	25	RMQ08- =
Waltheria indica	0.1	25	

Site	**RMQ23**				
Described by	KM	Date	23/06/2021	Type	Quadrat 50 x 50
Season	Excellent				
Zone	50 K	Easting/Northing		399993 mE, 7587774 mS	
Habitat	Plain				
Soil	SandyClayLoam				
Rock Type	-				
Vegetation	*Acacia atkinsiana* Mid Closed Shrubland over a mixed Low Open Shrubland / Forbland over *Triodia epactia* Closed Hummock Grassland				
Veg Condition	E				
Fire Age	> 10 years				

Taxon	Cover (%)	Height (cm)	Collection no.
Abutilon otocarpum	0.1	10	
Abutilon sp. Pilbara (W.R. Barker 2025)	0.1	40	RMQ14-02=
Acacia ancistrocarpa	2	180	
Acacia atkinsiana	80	170	RMQ01-01=
Acacia inaequilatera	0.6	250	
Acacia synchronicia	0.1	70	RMQ23-20
Arivela viscosa	0.3	70	
Bonamia erecta	0.5	40	RMQ23-04
Bonamia pannosa	0.1	30	RMQ17-01=
Bonamia pilbarensis	0.1	10	RMQ01-18=
Codonocarpus cotinifolius	0.1	220	
Corchorus tectus	0.3	40	RMQ23R-03
Dysphania kalpari	0.1	20	
Dysphania rhadinostachya subsp. *inflata*	0.1	20	RMQ01-06=

Taxon	Cover (%)	Height (cm)	Collection no.
Eriachne helmsii	0.2	60	RMQ23-02
Euphorbia boophthona	0.2	35	RMQ09-01=
Euphorbia boophthona	0.1	30	RMQ23R-01
Euphorbia vaccaria var. *vaccaria*	0.1	15	RMQ23-03
Evolvulus alsinoides var. *villosicalyx*	0.1	20	RMQ03-03=
Goodenia microptera	0.2	35	RMQ01-12=
Gossypium australe	1	70	
Grevillea wickhamii subsp. *hispidula*	0.1	220	RMQ23-01
Hibiscus sturtii var. *campylochlamys*	0.1	25	RMQ23R-02
Indigofera boviperda subsp. boviperda	0.1	20	RMQ14-03=
Ipomoea muelleri	0.1	cr	
Notoleptopus decaisnei	0.1	25	RMQ16-05=
Paraneurachne muelleri	0.1	40	
Paspalidium clementii	0.1	20	RMQ14-33=
Phyllanthus erwinii	0.1	10	RMQ14-24=
Polycarpaea corymbosa	0.1	10	
Ptilotus appendiculatus	0.1	40	RMQ23R-05
Ptilotus astrolasius	0.1	40	RMQ01-26=
Ptilotus axillaris	0.1	10	RMQ01-27=
Ptilotus exaltatus	0.1	50	
Ptilotus fusiformis	0.1	60	RMQ01-05=
Senna notabilis	0.1	30	
Sida arsiniata	0.1	40	RMQ09-06=
Sida echinocarpa	0.1	30	RMQ09-07=
Sida sp. L (A.M. Ashby 4202)	0.1	35	RMQ01-17=
Sida sp. Pilbara (A.A. Mitchell PRP 1543)	0.1	60	RMQ23R-04
Solanum diversiflorum	0.1	10	
Tribulus astrocarpus	0.1	10	RMQ16-09=
Tribulus macrocarpus	0.1	60	RMQ16-03=
Triodia epactia	50	20	RMQ03-04=
Triumfetta clementii	0.1	20	
Waltheria indica	0.1	35	RMQ01-17=

Site	**RMQ24**				
Described by	BRM	Date	23/06/2021	Type	Quadrat 50 x 50
Season	Excellent				
Zone	50 K	Easting/Northing		400560.23 mE, 7587905.78 mS	
Habitat	Plain				
Soil	ClayLoam				
Rock Type	Ironstone gravel pebbles cobbles				
Vegetation	*Acacia xiphophylla* Tall Sparse Shrubland over *Acacia synchronicia* Mid Isolated Shrubs over a mixed Low Open Shrubland / Forbland over *Triodia epactia* Sparse Hummock Grassland				
Veg Condition	E				
Fire Age	> 10 years				

Taxon	Cover (%)	Height (cm)	Collection no.
Abutilon lepidum	0.1	35	RMQ24-01
Abutilon sp. Pilbara (W.R. Barker 2025)	0.1	30	
Acacia synchronicia	0.5	180	
Acacia xiphophylla	5	300	
Arivela viscosa	0.1	30	
Chenopodiaceae sp.	0.1	20	RMQ24-03
Corchorus tectus	0.1	20	RMQ19-14=
Cynodon prostratus	0.1	2	RMQ19-03=
Dysphania kalpari	1	10	
Dysphania rhadinostachya subsp. *rhadinostachya*	0.1	30	RMQ19-02=
Enchylaena tomentosa	0.1	80	RMQ24-05
Eragrostis dielsii	0.1	10	RMQ24-04
Evolvulus alsinoides var. *villosicalyx*	0.1	5	
Gossypium australe	0.1	10	

Taxon	Cover (%)	Height (cm)	Collection no.
Maireana planifolia	0.1	70	
Malvastrum americanum	0.1	10	RMQ24-02
Notoleptopus decaisnei	0.1	15	
Paspalidium clementii	0.1	5	RMQ15-08=
Polycarpaea corymbosa	0.1	12	
Portulaca oleracea	0.1	5	
Ptilotus astrolasius	0.1	20	
Ptilotus axillaris	0.1	5	
Salsola australis	0.1	40	
Sclerolaena costata	0.1	15	RMQ19-08=
Senna artemisioides subsp. *oligophylla*	0.1	40	RMQ18-06=
Senna glutinosa subsp. x *luerssenii*	0.1	70	
Senna notabilis	0.1	5	
Sida arsiniata	0.1	15	
Sida echinocarpa	0.1	20	RMQ08-05=
Solanum diversiflorum	0.1	20	
Sporobolus australasicus	0.1	20	
Trianthema triquetra	1	15	
Tribulus astrocarpus	0.1	3	
Triodia epactia	1	40	
Triodia wiseana	0.1	40	

Site	**RMQ25**				
Described by	BRM	Date	24/06/2021	Type	Quadrat 50 x 50
Season	Excellent				
Zone	50 K	Easting/Northing		398842.51 mE, 7589824.69 mS	
Habitat	Large creek : banks, channel (gravelly, pebbly, cobble in parts), island				
Soil	SandyLoam				
Rock Type	-				
Vegetation	*Eucalyptus victrix* and *Eucalyptus camaldulensis* subsp. *reflugens* Mid Woodland over *Gossypium robinsonii*, *Acacia colei* var. *colei* and *Acacia trachycarpa* Tall Open Shrubland over *Evolvulus alsinoides* var. *villosicalyx*, *Cenchrus ciliaris*, *Cenchrus setiger* and *Triodia wiseana* Grassland / Forbland				
Veg Condition	P				
Fire Age	>10years				

Taxon	Cover (%)	Height (cm)	Collection no.
Abutilon aff. *hannii*	0.1	220	RMQ25-29
Abutilon lepidum	0.1	70	RMQ25-34
Acacia ancistrocarpa	0.5	180	
Acacia bivenosa	0.1	180	
Acacia colei var. *colei*	6	550	RMQ25-06
Acacia pyrifolia var. *pyrifolia*	0.3	260	
Acacia synchronicia	0.1	150	
Acacia trachycarpa	4	280	
Afrohybanthus aurantiacus	0.1	70	
Alternanthera nana	0.1	20	RMQ25-11
Amaranthus undulatus	0.1	170	RMQ25-22
Arivela viscosa	0.1	35	

Taxon	Cover (%)	Height (cm)	Collection no.
Blumea tenella	0.1	15	RMQ25-08
Boerhavia coccinea	0.1	25	RMQ25-23
Bonamia pilbarensis	0.1	10	RMQ25-24
Bulbostylis barbata	0.1	20	
Calandrinia ptychosperma	0.1	10	RMQ25-09
Cenchrus ciliaris	15	50	
Cenchrus setiger	15	50	RMQ21-14=
Centipeda minima subsp. *macrocephala*	0.1	10	RMQ25-13
Chloris pectinata	0.1	60	RMQ25-10
Chrysopogon fallax	0.1	60	
Corchorus tectus	0.1	45	RMQ19-14=
Corchorus tridens	0.1	12	RMQ25-04
Cucumis variabilis	0.1	190	
Cymbopogon ambiguus	0.1	120	
Cynodon prostratus	0.1	15	RMQ14R=
Cyperus vaginatus	0.1	50	
Dactyloctenium radulans	0.1	12	
Datura leichhardtii subsp. *leichhardtii*	0.1	70	RMQ25-28
Duperreya commixta	0.1	170	
Dysphania rhadinostachya subsp. *rhadinostachya*	0.1	30	RMQ25-03
Eragrostis tenellula	0.1	30	RMQ25-33
Eriachne flaccida	0.1	60	RMQ25-19
Eriachne pulchella	0.1	15	
Eucalyptus camaldulensis subsp. *refulgens*	8	1400	
Eucalyptus victrix	20	1200	
Euphorbia boophthona	0.1	50	RMQ25-05
Euphorbia careyi	0.1	15	RMQ25-18
Euphorbia hirta	0.1	45	RMQ25-07
Euphorbia trigonosperma	0.1	40	RMQ25-25
Euphorbia vaccaria var. *vaccaria*	0.1	15	RMQ25-35
Evolvulus alsinoides var. *decumbens*	0.1	40	RMQ25-02
Evolvulus alsinoides var. *villosicalyx*	0.2	25	
Goodenia lamprosperma	0.1	50	
Goodenia microptera	0.1	30	RMQ14R=
Gossypium australe	0.1	60	
Gossypium robinsonii	8	380	
Hibiscus sturtii var. *campylochlamys*	0.1	35	RMQ18-05=
Indigofera boviperda subsp. *boviperda*	0.1	40	RMQ25-31
Ipomoea muelleri	0.1	10	RMQ25-17
Jasminum didymum subsp. *lineare*	0.1	60	
Malvastrum americanum	1	40	
Marsilea drummondii	0.1	20	RMQ25-27
Melaleuca glomerata	12	350	RMQ25-01
Melhania oblongifolia	0.1	35	
Nicotiana benthamiana	0.1	200	RMQ25R-01

Taxon	Cover (%)	Height (cm)	Collection no.
Notoleptopus decaisnei	0.1	30	
Paspalidium clementii	0.1	30	RMQ25-16
Phyllanthus erwinii	0.1	25	
Phyllanthus maderaspatensis	0.1	25	
Polycarpaea longiflora	0.1	25	
Portulaca oleracea	0.1	1	
Pterocaulon sphacelatum	0.1	70	
Ptilotus astrolasius	0.1	45	
Ptilotus auriculifolius	0.1	30	
Ptilotus axillaris	0.1	50	
Ptilotus exaltatus	0.1	40	
Rhynchosia minima	0.1	80	
Senna artemisioides subsp. *oligophylla*	0.1	80	
Senna notabilis	0.1	45	
Sesbania cannabina	0.1	80	
Setaria dielsii	0.1	60	RMQ25-21
Sida sp. L (A.M. Ashby 4202)	0.1	20	RMQ25-32
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	45	
Solanum cleistogamum	0.1	30	
Solanum diversiflorum	0.1	30	
Sporobolus australasicus	0.1	15	
Stemodia grossa	0.1	40	
Stylobasium spathulatum	0.1	150	
Synaptantha tillaeacea var. *tillaeacea*	0.1	12	RMQ25-15
Tephrosia rosea var. Fortescue creeks	0.1	40	RMQ25-20
Themeda triandra	0.1	70	
Trianthema triquetra	0.1	30	
Triodia epactia	1	40	
Triodia wiseana	0.5	45	
Triumfetta clementii	0.1	25	RMQ08-08=
Vachellia farnesiana	0.1	45	
Vigna lanceolata var. *lanceolata*	0.3	30	RMQ25-14
Wahlenbergia tumidifructa	0.1	30	RMQ39=
Waltheria indica	0.1	25	

Site	**RMQ26**				
Described by	BRM	Date	24/06/2021	Type	Quadrat 50 x 50
Season	Excellent				
Zone	50 K	Easting/Northing		398629.82 mE, 7589878.47 mS	
Habitat	Flood plain				
Soil	SandyLoam				
Rock Type	-				
Vegetation	*Eucalyptus victrix* Low Isolated Trees over *Acacia sclerosperma* subsp. *sclerosperma*, and *Acacia xiphophylla* Tall Sparse Shrubland over a mixed Low Open Shrubland / Forbland over *Triodia epactia* Sparse Hummock Grassland				
Veg Condition	VG				
Fire Age	> 6yrs since fire				

Taxon	Cover (%)	Height (cm)	Collection no.
Abutilon aff. *fraseri*	0.1	30	RMQ26-03
Abutilon otocarpum	0.1	50	
Abutilon sp. Pilbara (W.R. Barker 2025)	0.1	40	
Acacia sclerosperma subsp. *sclerosperma*	4	280	RMQ26-10
Acacia synchronicia	7	280	
Acacia xiphophylla	0.5	180	
Amaranthus cuspidifolius	0.1	30	RMQ26-09
Arivela viscosa	0.1	80	
Boerhavia coccinea	0.3	20	RMQ25-23=
Bulbostylis barbata	0.1	20	
Bulbostylis turbinata	0.1	20	RMQ26-04
Calotis plumulifera	0.1	5	RMQ26R-02
Cenchrus ciliaris	2	30	
Cenchrus setiger	1	50	RMQ26-19
Corchorus lasiocarpus	0.1	40	RMQ19-14=

Taxon	Cover (%)	Height (cm)	Collection no.
Corchorus tridens	0.1	10	RMQ25-04=
Cynodon prostratus	0.1	1	
Dactyloctenium radulans	0.3	20	
Digitaria ctenantha	0.1	45	RMQ26-05
Dysphania kalpari	0.1	30	RMQ26-12
Dysphania melanocarpa forma *melanocarpa*	0.1	20	RMQ26-13
Dysphania rhadinostachya subsp. *rhadinostachya*	0.1	40	RMQ25-03=
Enchylaena tomentosa	0.1	30	
Eragrostis cumingii	0.1	25	RMQ26-07
Eragrostis dielsii	0.1	5	RMQ26-15
Eragrostis tenellula	0.1	35	RMQ26-06
Eucalyptus victrix	1	600	
Euphorbia boophthona	0.1	35	RMQ25-05=
Euphorbia trigonosperma	0.1	15	RMQ26-08
Euphorbia vaccaria var. *vaccaria*	0.1	5	RMQ26-16
Evolvulus alsinoides var. *villosicalyx*	0.1	20	
Goodenia forrestii	0.1	40	
Goodenia microptera	0.1	15	
Hibiscus sturtii var. *campylochlamys*	0.1	30	RMQ18-05=
Malvastrum americanum	0.1	30	
Nicotiana benthamiana	0.1	10	RMQ26R-03
Nicotiana sp.	0.1	10	RMQ26-19
Notoleptopus decaisnei	0.1	45	
Paspalidium clementii	0.1	15	RMQ26-02
Phyllanthus erwinii	0.1	10	
Portulaca oleracea	0.1	3	
Pterocaulon sphacelatum	0.1	3	RMQ18-01=
Ptilotus aervoides	0.1	1	
Ptilotus astrolasius	0.1	20	
Ptilotus axillaris	0.1	10	
Ptilotus exaltatus	0.1	20	
Rhagodia eremaea	0.1	130	
Salsola australis	0.1	35	
Sclerolaena costata	1	20	RMQ19-08=
Senna artemisioides subsp. *oligophylla*	0.1	30	
Senna notabilis	0.1	30	
Setaria verticillata	0.1	30	RMQ26R-01
Sida arsiniata	0.1	40	
Sida fibulifera	0.1	20	RMQ26-01
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	40	
Solanum cleistogamum	0.1	45	RMQ26-18
Solanum diversiflorum	0.1	10	
Sporobolus australasicus	0.5	12	
Streptoglossa decurrens	0.1	40	
Streptoglossa odora	0.1	30	RMQ26-11
Trianthema oxycalyptrum var. *oxycalyptrum*	0.1	3	RMQ26R-04
Trianthema triquetra	2	12	
Triodia epactia	4	40	
Urochloa occidentalis var. *occidentalis*	0.1	25	RMQ26-14
Vachellia farnesiana	0.1	190	

Site	**RMQ27**				
Described by	KM	Date	24/06/2021	Type	Quadrat 25 x 100
Season	Excellent				
Zone	50 K	Easting/Northing		399333 mE, 7592119 mS	
Habitat	Major creek line, braided including islands				
Soil	ClayLoam; river stones				
Rock Type	-				
Vegetation	*Eucalyptus camaldulensis* subsp. *reflugens* and *Eucalyptus victrix* Mid Closed Forest over *Melaleuca glomerata*, *Gossypium robinsonii* and *Acacia trachycarpa* Tall Sparse Shrubland over *Eulalia aurea*, and other mixed species Grassland / Forbland				
Veg Condition	VG				
Fire Age	> 10 years				

Taxon	Cover (%)	Height (cm)	Collection no.
Abutilon lepidum	0.1	90	RMQ27-23
Abutilon otocarpum	0.1	40	RMQ14-27=
Abutilon sp. Pilbara (W.R. Barker 2025)	0.1	45	
Acacia colei var. *colei*	0.1	220	RMQ14-26=
Acacia pyrifolia var. *pyrifolia*	0.1	200	RMQ27-04
Acacia sclerosperma subsp. *sclerosperma*	0.1	120	
Acacia trachycarpa	0.5	270	
Afrohybanthus aurantiacus	0.1	40	
Alternanthera nana	0.1	20	RMQ27R-01
Alternanthera nodiflora	0.1	15	RMQ14-17=
Ammannia multiflora	0.1	7	RMQ27-16
Aristida pruinosa	0.1	90	RMQ27-19
Arivela viscosa	0.1	70	
Blumea tenella	0.1	20	RMQ27-11

Taxon	Cover (%)	Height (cm)	Collection no.
Boerhavia repleta	0.1	20	RMQ14-12=
Bulbostylis barbata	0.2	20	
Calandrinia ptychosperma	0.1	1	RMQ14-08=
Cenchrus ciliaris	9	90	
Cenchrus setiger	9	60	
Centipeda minima subsp. *macrocephala*	0.1	10	RMQ27-10
Chloris pectinata	0.1	20	RMQ27-29
Chrysopogon fallax	0.1	90	
Corchorus sidoides subsp. *sidoides*	0.1	40	RMQ27-22
Corchorus tectus	0.1	50	RMQ14-34=
Corchorus tridens	0.1	10	RMQ01-28=
Corymbia candida subsp. *candida*	0.1	50	RMQ14-01=
Crotalaria medicaginea	0.1	35	
Cucumis variabilis	0.1	cr	
Cymbopogon ambiguus	0.1	170	RMQ27-20
Cynodon convergens	0.1	10	
Cyperus difformis	0.1	10	RMQ27-15
Cyperus vaginatus	0.5	120	RMQ27-07
Dactyloctenium radulans	0.1	10	
Dichanthium sericeum subsp. *humilius*	0.1	50	RMQ27-30
Digitaria ctenantha	0.1	30	RMQ27-18
Dysphania melanocarpa forma *melanocarpa*	0.1	20	RMQ27-27
Dysphania rhadinostachya subsp. *inflata*	0.1	20	RMQ01-06=
Eragrostis cumingii	0.5	10	RMQ14-05=
Eragrostis dielsii	0.1	20	RMQ27-08
Eragrostis tenellula	0.2	20	RMQ14-31=
Eriachne benthamii	0.1	130	RMQ27R-02
Eriachne pulchella subsp. *dominii*	0.1	10	RMQ01-07=
Eucalyptus camaldulensis subsp. *refulgens*	70	1600	RMQ27-01
Eucalyptus victrix	10	1600	RMQ27-02
Eulalia aurea	12	90	RMQ27-05
Euphorbia biconvexa	0.1	30	RMQ14-37=
Euphorbia boophthona	0.1	40	RMQ09-01=
Euphorbia hirta	0.2	35	RMQ27-12
Euphorbia trigonosperma	0.1	20	RMQ27-28
Euphorbia vaccaria var. *vaccaria*	0.1	10	RMQ14-21=
Evolvulus alsinoides var. *decumbens*	0.1	15	RMQ14-15=
Evolvulus alsinoides var. *villosicalyx*	0.1	20	RMQ03-03=
Flaveria trinervia	0.1	50	
Goodenia forrestii	0.1	20	RMQ09-13=
Goodenia lamprosperma	0.1	35	
Goodenia microptera	0.1	50	RMQ14-13=
Gossypium robinsonii	2	220	
Hibiscus sturtii var. *campylochlamys*	0.1	40	RMQ27R-03
Ipomoea muelleri	0.1	cr	
Iseilema dolichotrichum	0.1	10	RMQ27-09
Malvastrum americanum	1	35	

Taxon	Cover (%)	Height (cm)	Collection no.
Marsilea drummondii	0.1	10	RMQ27-13
Melaleuca glomerata	3	400	RMQ27-03
Melhania oblongifolia	0.1	40	RMQ14-30=
Notoleptopus decaisnei	0.1	25	RMQ16-05=
Paspalidium clementii	0.1	15	RMQ14-33=
Perotis rara	0.1	10	
Petalostylis labicheoides	0.5	220	
Phyllanthus erwinii	0.1	20	
Phyllanthus maderaspatensis	0.1	30	
Pluchea rubelliflora	0.1	30	RMQ14-25=
Polycarpaea corymbosa	0.1	10	
Polycarpaea longiflora	0.1	30	
Polygala glaucifolia	0.1	10	RMQ27-17
Polymeria ambigua	0.3	cr	RMQ14-11=
Portulaca oleracea	0.1	10	
Pterocaulon sphacelatum	0.1	10	RMQ14-19=
Ptilotus appendiculatus	0.1	10	RMQ27-25
Ptilotus axillaris	0.1	15	
Ptilotus exaltatus	0.1	60	
Ptilotus fusiformis	0.1	25	
Rhynchosia minima	0.2	cr	
Senna artemisioides subsp. *oligophylla*	0.1	90	
Senna notabilis	0.1	80	
Sesbania cannabina	0.1	90	
Setaria dielsii	4	60	RMQ27-06
Sida arsiniata	0.1	30	
Sida fibulifera	0.1	30	RMQ27-21
Sida sp. L (A.M. Ashby 4202)	0.5	40	RMQ27-24
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	70	RMQ14-10=
Solanum cleistogamum	0.1	40	RMQ27-14
Solanum diversiflorum	0.1	40	RMQ01-10=
Sporobolus australasicus	0.2	20	
Stemodia grossa	0.1	10	
Streptoglossa bubakii	0.1	40	RMQ09-11=
Synaptantha tillaeacea var. *tillaeacea*	0.1	10	RMQ14-07=
Themeda triandra	1	90	
Trianthema triquetra	0.1	10	
Trichodesma zeylanicum var. *zeylanicum*	0.1	90	
Trigastrotheca molluginea	0.1	10	
Triodia epactia	0.5	50	
Triumfetta clementii	0.1	50	RMQ03-04=
Urochloa occidentalis var. *occidentalis*	0.1	20	RMQ27-26
Vachellia farnesiana	0.1	300	
Vigna lanceolata var. *lanceolata*	0.1	cr	RMQ14-22=
Wahlenbergia tumidifructa	0.1	30	RMQ40-12=

Site	**RMQ28**				
Described by	KM	Date	24/06/2021	Type	Quadrat 50 x 50
Season	Excellent				
Zone	50 K	Easting/Northing		399411 mE, 7592011 mS	
Habitat	Floodplain				
Soil	LoamySand				
Rock Type	-				
Vegetation	*Corymbia hamersleyana* Low Isolated Trees over *Acacia sclerosperma* subsp. *sclerosperma*, *Acacia trachycarpa* and *Acacia synchronicia* Tall Open Shrubland over a mixed Low Open Shrubland / Forbland over *Triodia epactia* Sparse Hummock Grassland				
Veg Condition	G-VG				
Fire Age	> 10 years				

Taxon	Cover (%)	Height (cm)	Collection no.
Abutilon otocarpum	0.2	40	
Abutilon sp. Pilbara (W.R. Barker 2025)	0.1	40	RMQ14-02=
Acacia sclerosperma subsp. *sclerosperma*	9	300	
Acacia synchronicia	2	250	
Acacia trachycarpa	7	400	
Acacia xiphophylla	0.1	110	RMQ28-07
Amaranthus cuspidifolius	0.1	20	RMQ28-05
Arivela viscosa	0.5	60	
Boerhavia repleta	0.2	20	RMQ14-12=
Bulbostylis barbata	0.1	15	
Calandrinia ptychosperma	0.1	1	RMQ14-08=
Calotis plumulifera	<1 %		
Calotis plumulifera	0.1	20	RMQ28-04
Cenchrus ciliaris	5	60	
Cenchrus setiger	10	70	
Corchorus tectus	0.1	40	RMQ09-19=

Taxon	Cover (%)	Height (cm)	Collection no.
Corchorus tridens	5	10	
Corymbia candida subsp. candida	0.1	400	RMQ28-03
Corymbia hamersleyana	1	500	
Dactyloctenium radulans	0.1	5	
Digitaria ctenantha	0.1	40	RMQ27-18=
Dysphania melanocarpa forma *melanocarpa*	0.1	20	RMQ27-27=
Dysphania rhadinostachya subsp. *inflata*	0.1	20	RMQ01-06=
Eragrostis dielsii	0.1	20	RMQ27-08=
Eriachne aristidea	0.1	40	
Euphorbia boophthona	0.3	40	RMQ09-01=
Euphorbia vaccaria var. *vaccaria*	0.1	5	RMQ14-21=
Evolvulus alsinoides var. *villosicalyx*	0.1	10	RMQ03-03=
Goodenia forrestii	0.1	10	RMQ09-13=
Goodenia microptera	0.1	40	
Gossypium australe	0.1	30	
Grevillea pyramidalis	0.1	120	
Heliotropium crispatum	0.1	20	
Heliotropium heteranthum	0.1	1	
Hibiscus coatesii	0.1	40	
Hibiscus sturtii var. *campylochlamys*	0.1	30	RMQ09-20=
Indigofera colutea	0.1	20	
Ipomoea muelleri	0.1	cr	
Iseilema dolichotrichum	0.1	10	RMQ27-09=
Malvastrum americanum	0.1	50	
Notoleptopus decaisnei	0.2	20	
Paspalidium clementii	0.2	10	RMQ14-33=
Perotis rara	0.1	5	
Phyllanthus erwinii	0.1	20	
Portulaca oleracea	5	3	
Pterocaulon sphacelatum	0.1	20	
Ptilotus appendiculatus	0.1	10	RMQ14-14=
Ptilotus astrolasius	0.1	40	
Ptilotus axillaris	0.1	10	
Ptilotus exaltatus	0.1	40	
Ptilotus fusiformis	0.1	35	
Senna artemisioides subsp. *oligophylla*	0.2	50	
Senna notabilis	0.1	40	
Sida arsiniata	0.1	30	RMQ28R-05
Sida fibulifera	0.5	20	RMQ18-01=
Sida sp. L (A.M. Ashby 4202)	0.1	30	RMQ28R-04
Solanum diversiflorum	0.2	40	
Solanum horridum	0.1	20	RMQ01-08=
Sporobolus australasicus	0.2	20	
Streptoglossa ? tenuiflora	0.1	30	RMQ01-11=
Streptoglossa odora	0.1	35	RMQ28R-02
Trianthema pilosa	1	5	RMQ28-02
Trianthema triquetra	2	1	
Tribulus ? occidentalis	0.1	5	RMQ28R-01
Tribulus astrocarpus	2	10	
Tribulus macrocarpus	0.1	10	RMQ16-09=
Triodia epactia	8	50	
Triodia wiseana	2	50	
Triumfetta clementii	0.1	50	

Site	**RMQ29**				
Described by	CG	Date	24/06/2021	Type	Quadrat 50 x 50
Season	Excellent				
Zone	50 K	Easting/Northing		399302.33 mE, 7593076.95 mS	
Habitat	Broad flat drainage line				
Soil	ClayLoam				
Rock Type	-				
Vegetation	*Corymbia candida* subsp. *candida* Low Open Forest over *Acacia trachycarpa*, *Acacia bivenosa*, *Acacia ancistrocarpa*, *Acacia synchronicia* and *Acacia citrinoviridis* Tall Open Shrubland over *Cenchrus setiger*, *Cenchrus ciliaris* and other mixed species Closed Grassland / Forbland				
Veg Condition	G				
Fire Age	> 10 years				

Taxon	Cover (%)	Height (cm)	Collection no.
Abutilon fraseri subsp. *fraseri*	0.1	40	RMQ29-52
Abutilon lepidum	0.6	130	RMQ29-07
Acacia ancistrocarpa	0.1	300	
Acacia atkinsiana	0.1	150	
Acacia bivenosa	2.5	120	
Acacia citrinoviridis	0.5	600	RMQ29-51
Acacia inaequilatera	0.1	120	
Acacia ligulata	0.1	170	RMQ29-49
Acacia sclerosperma subsp. *sclerosperma*	1	260	RMQ29R-06
Acacia synchronicia	2	270	
Acacia trachycarpa	5	400	
Afrohybanthus aurantiacus	0.1	40	RMQ29-48

Taxon	Cover (%)	Height (cm)	Collection no.
Alternanthera nana	0.1	15	RMQ29-14
Alysicarpus muelleri	0.1	50	RMQ29-21
Arivela viscosa	0.25	90	
Boerhavia coccinea	0.1	5	RMQ29-47
Boerhavia repleta	0.1	10	RMQ29-24
Bulbostylis barbata	0.1	4	RMQ29-46
Calandrinia ptychosperma	0.1	5	RMQ29-10
Calocephalus knappii	0.1	10	RMQ29R-04
Cenchrus ciliaris	5	40	
Cenchrus setiger	75	40	RMQ29-04
Chloris pectinata	0.1	60	RMQ29-28
Convolvulus clementii	0.1	cr	RMQ29-19
Corchorus tectus	0.1	45	RMQ29-54
Corchorus tridens	0.1	20	RMQ29-37
Corymbia candida subsp. *candida*	65	700	RMQ29-01
Cucumis variabilis	0.1	cr	RMQ29-42
Cymbopogon ambiguus	0.1	110	
Dichanthium sericeum subsp. *humilius*	0.1	50	RMQ29-35
Duperreya commixta	0.1	20	RMQ29-15
Dysphania rhadinostachya subsp. *inflata*	0.1	30	RMQ29-45
Dysphania rhadinostachya subsp. *rhadinostachya*	0.1	20	RMQ29-11
Eragrostis cumingii	0.1	30	RMQ29-29
Eriachne pulchella subsp. *dominii*	0.1	20	RMQ11-02=
Euphorbia biconvexa	0.1	60	RMQ29R-02
Euphorbia boophthona	0.1	40	RMQ29-36
Euphorbia hirta	0.1	25	RMQ29-13
Evolvulus alsinoides var. *decumbens*	0.1	30	RMQ29-12
Evolvulus alsinoides var. *villosicalyx*	0.1	15	RMQ29-16
Goodenia forrestii	0.1	60	RMQ29-56
Goodenia microptera	0.1	35	
Gossypium australe	0.1	40	
Grevillea pyramidalis	0.1	200	
Hakea lorea subsp. lorea	0.1	60	
Hibiscus sturtii var. *campylochlamys*	0.1	40	RMQ29-38
Indigofera colutea	0.1	30	RMQ29-31
Ipomoea muelleri	0.1	cr	RMQ29-06
Malvastrum americanum	10	90	RMQ29-05
Notoleptopus decaisnei	0.1	30	RMQ10-10=
Paraneurachne muelleri	0.1	90	RMQ29-30
Paspalidium ? clementii	0.1	10	RMQ29R-05
Paspalidium rarum	0.1	25	RMQ29-39
Phyllanthus erwinii	0.1	25	RMQ29-25
Polycarpaea corymbosa	0.1	20	
Polygala glaucifolia	0.1	5	RMQ29R-03
Portulaca oleracea	0.1	20	

Taxon	Cover (%)	Height (cm)	Collection no.
Pterocaulon sphacelatum	0.1	40	RMQ29R-01
Ptilotus appendiculatus	0.1	30	RMQ29-43
Ptilotus exaltatus	0.1	40	
Rhynchosia minima	0.1	cr	
Senna artemisioides subsp. *oligophylla*	1	60	
Senna notabilis	0.1	70	
Setaria dielsii	0.1	60	RMQ29-09
Sida arsiniata	0.1	70	RMQ29-34
Sida fibulifera	0.1	20	RMQ29-23
Sida rohlenae subsp. *rohlenae*	0.1	40	RMQ29-17
Sida sp. L (A.M. Ashby 4202)	0.1	25	RMQ29-33
Solanum cleistogamum	0.1	30	RMQ29-41
Solanum diversiflorum	0.25	40	
Sporobolus australasicus	0.1	20	
Streptoglossa bubakii	0.1	15	RMQ22-06
Streptoglossa decurrens	0.1	35	
Themeda triandra	0.5	120	RMQ29-03
Trianthema triquetra	0.1	20	RMQ20-21=
Tribulus macrocarpus	0.1	5	RMQ22-12=
Tribulus occidentalis	0.1	5	RMQ29-53
Triodia epactia	1	90	
Triodia wiseana	2.5	80	RMQ29-20
Triumfetta clementii	1	40	RMQ29-27
Urochloa occidentalis var. *occidentalis*	0.1	50	RMQ29-08
Vigna lanceolata var. *lanceolata*	0.1	cr	RMQ29-22

Site	**RMQ30**				
Described by	CG	Date	24/06/2021	Type	Quadrat 50 x 50
Season	Excellent				
Zone	50 K	Easting/Northing		398586.69 mE, 7592646.32 mS	
Habitat	Gently undulating plain				
Soil	LoamySand				
Rock Type	Ironstone				
Vegetation	*Corymbia hamersleyana* Low Isolated Trees over *Acacia inaequilatera* and *Acacia synchronicia* Mid Sparse Shrubland over *Triodia epactia* Hummock Grassland				
Veg Condition	E				
Fire Age	> 10 years				

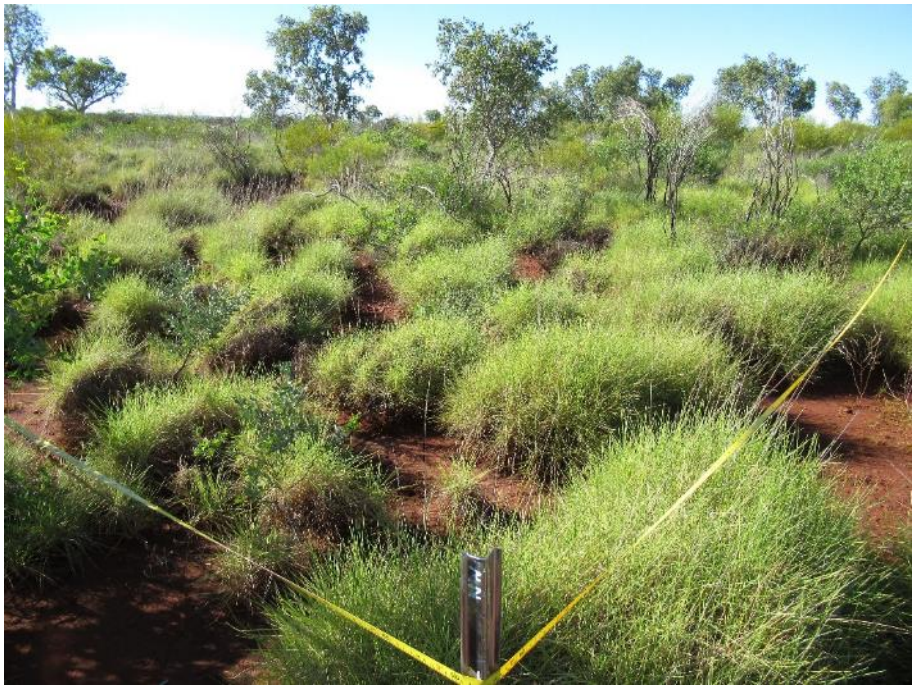
Taxon	Cover (%)	Height (cm)	Collection no.
Abutilon sp.	0.1	20	RMQ30-12
Abutilon sp. Pilbara (W.R. Barker 2025)	0.1	70	RMQ30-11
Acacia ancistrocarpa	0.1	300	
Acacia arida	0.1	20	
Acacia elachantha	0.1	10	RMQ30R-02
Acacia inaequilatera	5	400	
Acacia sclerosperma subsp. *sclerosperma*	0.1	120	
Acacia synchronicia	0.1	120	
Aristida holathera var. *holathera*	0.1	30	RMQ30-15
Arivela viscosa	0.1	40	
Bonamia erecta	0.5	40	RMQ30-02
Bonamia linearis	0.1	10	RMQ30R-01
Bonamia pannosa	0.1	10	
Bulbostylis barbata	0.1	25	

Taxon	Cover (%)	Height (cm)	Collection no.
Corchorus tectus	0.1	60	RMQ30R-03
Corymbia hamersleyana	1-2	600	
Cucumis variabilis	0.1	cr	
Cullen martinii	0.2	40	RMQ30-03
Cullen pogonocarpum	0.1	15	RMQ30-14
Euphorbia boophthona	0.1	35	RMQ10-01=
Goodenia microptera	0.2	40	RMQ02-16=
Gossypium australe	0.1	40	
Gossypium robinsonii	0.1	100	
Hibiscus brachychlaenus	0.1	80	RMQ30-10
Hibiscus leptocladus	0.1	30	RMQ30-08
Indigofera boviperda subsp. *boviperda*	0.1	50	RMQ30-09
Notoleptopus decaisnei	0.1	30	
Phyllanthus erwinii	0.1	10	RMQ20-11=
Ptilotus arthrolasius	0.1	30	RMQ30-04
Ptilotus astrolasius	0.3	30	
Ptilotus auriculifolius	0.1	60	RMQ20-01=
Ptilotus axillaris	0.3	30	
Ptilotus exaltatus	0.1	70	
Ptilotus fusiformis	0.1	80	
Rhynchosia minima	0.1	60	
Senna notabilis	0.5	20	
Solanum cleistogamum	0.1	40	RMQ02-07=
Solanum diversiflorum	0.1	30	
Tephrosia sp. B Kimberley Flora (C.A. Gardner 7300)	0.1	110	RMQ30-01
Tribulus hirsutus	0.1	15	
Tribulus macrocarpus	0.1	15	RMQ30-13
Trigastrotheca molluginea	0.1	10	
Triodia epactia	50	90	
Triodia wiseana	2	60	
Waltheria indica	0.1	45	

Site	**RMQ31**				
Described by	BRM	Date	25/06/2021	Type	Quadrat 50 x 50
Season	Excellent				
Zone	50 K	Easting/Northing		399442.27 mE, 7589231.37 mS	
Habitat	Plain with some open bare ground areas and some small clay pan areas				
Soil	LightClay				
Rock Type	-				
Vegetation	*Acacia synchronicia* Tall Open Shrubland over a mixed Low Open Shrubland / Forbland over *Triodia epactia* Open Hummock Grassland				
Veg Condition	E				
Fire Age	>6-8 yrs since fire				

Taxon	Cover (%)	Height (cm)	Collection no.
Abutilon lepidum	0.1	80	RMQ31-22
Acacia synchronicia	12	220	
Alternanthera nana	0.1	20	RMQ31-24
Arivela viscosa	0.3	130	
Boerhavia sp.	0.1	20	
Bulbostylis barbata	0.1	20	
Bulbostylis turbinata	0.1	20	RMQ31-14
Calandrinia ptychosperma	0.1	3	RMQ31-05
Centipeda minima subsp. *macrocephala*	0.1	25	RMQ31-12
Corchorus sidoides subsp. *sidoides*	0.1	60	
Corchorus tridens	0.1	20	RMQ31-13
Cynodon prostratus	0.2	5	RMQ19-03=
Cyperus difformis	0.1	30	RMQ31-07
Cyperus iria	0.2	10	RMQ31-11

Taxon	Cover (%)	Height (cm)	Collection no.
Dactyloctenium radulans	0.2	20	
Dysphania rhadinostachya subsp. *rhadinostachya*	0.1	30	RMQ21-06
Eragrostis crateriformis	0.2	20	RMQ31R-01
Eragrostis cumingii	0.2	25	RMQ31-03
Eragrostis dielsii	0.2	10	RMQ31-06
Euphorbia boophthona	0.1	40	RMQ31-17
Evolvulus alsinoides var. *villosicalyx*	0.1	30	
Fimbristylis dichotoma	0.2	40	RMQ31-18
Fimbristylis elegans	0.1	25	RMQ31R-02
Gossypium australe	0.1	40	
Hibiscus sturtii var. *campylochlamys*	0.1	5	RMQ18-05=
Ipomoea coptica	0.2	70	RMQ31-09
Marsilea hirsuta	0.1	10	RMQ31-01
Paspalidium rarum	0.1	20	RMQ31-15
Peplidium muelleri	6.1	1	RMQ31-08
Phyllanthus erwinii	0.1	30	
Pluchea rubelliflora	0.3	30	RMQ31-04
Polycarpaea corymbosa	0.1	12	
Portulaca oleracea	0.1	20	
Pterocaulon sphacelatum	0.1	30	RMQ18-01=
Ptilotus appendiculatus	0.1	30	RMQ21-01=
Ptilotus astrolasius	0.1	30	
Ptilotus axillaris	0.1	20	
Ptilotus gomphrenoides	0.1	10	RMQ31R-03
Salsola australis	0.1	30	
Sclerolaena costata	0.2	40	
Senna notabilis	0.1	80	
Sida arsiniata	0.1	40	
Sida echinocarpa	0.1	60	
Sida sp. L (A.M. Ashby 4202)	0.1	40	RMQ31-19
Solanum cleistogamum	0.1	45	RMQ31-23
Solanum diversiflorum	0.1	40	
Streptoglossa decurrens	0.1	40	
Synaptantha tillaeacea var. *tillaeacea*	0.1	3	RMQ31-21
Trianthema triquetra	0.2	10	
Tribulus macrocarpus	0.1	15	
Triodia epactia	15	60	
Vachellia farnesiana	0.1	60	

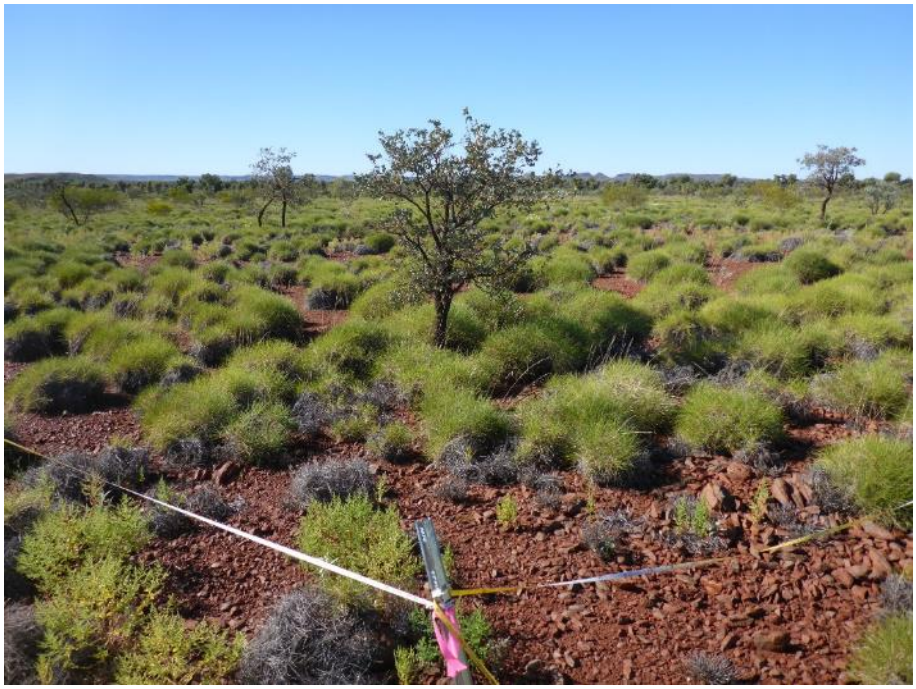


Site	**RMQ32**				
Described by	KM	Date	25/06/2021	Type	Quadrat 50 x 50
Season	Excellent				
Zone	50 K	Easting/Northing		398905 mE, 7589365 mS	
Habitat	Creek bed and floodplain				
Soil	ClayLoam				
Rock Type	Colluvial mix ironstone and basalt?				
Vegetation	*Corymbia candida* subsp. *candida* Low Woodland over *Acacia synchronicia*, *Acacia ancistrocarpa* and *Acacia trachycarpa* Tall Open Shrubland over a mixed Low Open Shrubland / Forbland over *Triodia epactia* Open Hummock Grassland				
Veg Condition	E				
Fire Age	6-10 years				

Taxon	Cover (%)	Height (cm)	Collection no.
Abutilon lepidum	0.1	110	
Acacia ancistrocarpa	10	200	
Acacia atkinsiana	0.1	200	
Acacia bivenosa	0.5	170	
Acacia colei var. *colei*	0.1	300	RMQ14-26=
Acacia sclerosperma subsp. *sclerosperma*	1	160	
Acacia synchronicia	3	180	
Acacia trachycarpa	3	180	
Alternanthera nana	0.1	30	RMQ32R-01
Alternanthera nodiflora	0.2	30	RMQ14-17=
Ammannia multiflora	0.1	35	RMQ32-11
Arivela viscosa	0.2	60	
Bergia pedicellaris	0.1	5	RMQ32R-05

Taxon	Cover (%)	Height (cm)	Collection no.
Blumea tenella	0.1	20	RMQ32-18
Bulbostylis barbata	0.2	20	
Bulbostylis turbinata	2	20	RMQ32-08
Calandrinia ptychosperma	0.5	5	RMQ14-08=
Cenchrus ciliaris	0.1	60	
Centipeda minima subsp. *macrocephala*	0.1	10	RMQ32-17
Chloris pectinata	0.1	30	
Chrysopogon fallax	0.1	90	
Corchorus sidoides subsp. *sidoides*	0.1	30	RMQ09-18=
Corymbia candida subsp. *candida*	15	800	RMQ28=
Cullen pogonocarpum	0.1	40	RMQ32-03
Cynodon convergens	0.1	1	
Cyperus iria	0.2	30	RMQ32-07
Cyperus pulchellus	0.1	10	RMQ32-12
Cyperus squarrosus	0.1	10	RMQ32-06
Dactyloctenium radulans	0.1	10	
Digitaria ctenantha	0.1	50	RMQ27-18=
Eragrostis crateriformis	0.1	20	RMQ32R-03
Eragrostis cumingii	4	30	RMQ14-05=
Eragrostis dielsii	0.1	20	RMQ27-08=
Eragrostis leptocarpa	0.1	40	RMQ32-13
Eragrostis tenellula	0.2	20	RMQ14-31=
Eriachne benthamii	2	50	RMQ32-01
Euphorbia biconvexa	0.1	40	RMQ14-37=
Euphorbia boophthona	0.1	40	RMQ09-01=
Evolvulus alsinoides var. *decumbens*	0.1	40	RMQ32R-02
Evolvulus alsinoides var. *villosicalyx*	0.1	20	RMQ03-03=
Fimbristylis dichotoma	0.5	35	
Fimbristylis elegans	0.2	20	RMQ32-09
Goodenia lamprosperma	0.1	35	RMQ32R-04
Goodenia microptera	0.1	30	RMQ01-12=
Goodenia microptera	0.1	30	RMQ14-13=
Gossypium australe	0.1	40	
Gossypium robinsonii	0.1	70	
Hakea lorea subsp. *lorea*	0.1	180	
Hibiscus sturtii var. *campylochlamys*	0.1	20	
Indigofera boviperda subsp. *boviperda*	0.3	30	RMQ14-03=
Ipomoea muelleri	0.2	cr	
Isotropis atropurpurea	0.3	40	RMQ14-04=
Malvastrum americanum	0.1	30	
Marsilea hirsuta	0.2	20	RMQ32-04
Melhania oblongifolia	0.1	40	
Mimulus gracilis	0.1	20	RMQ32-05
Neptunia dimorphantha	0.1	10	RMQ32-15
Paspalidium clementii	0.1	30	RMQ14-33=

Taxon	Cover (%)	Height (cm)	Collection no.
Peplidium muelleri	0.1	1	RMKMopp02
Phyllanthus erwinii	0.1	20	RMQ14-24=
Phyllanthus maderaspatensis	0.1	35	
Pluchea rubelliflora	2.1	40	RMQ32-16
Polymeria ambigua	0.2	cr	RMQ14-11=
Portulaca oleracea	0.1	10	
Schoenoplectus laevis	0.1	30	RMQ32-10
Senna artemisioides subsp. oligophylla	0.1	50	RMQ09-03=
Senna notabilis	0.1	30	
Sida sp. L (A.M. Ashby 4202)	0.1	25	RMQ14-06=
Solanum cleistogamum	0.1	50	RMQ27-14=
Solanum diversiflorum	0.1	30	RMQ01-10=
Sporobolus australasicus	0.1	10	
Stemodia grossa	0.1	15	
Streptoglossa bubakii	0.1	50	RMQ09-11=
Streptoglossa decurrens	0.1	40	RMQ01-24=
Stylobasium spathulatum	1	180	
Synaptantha tillaeacea var. *tillaeacea*	1	5	RMQ14-07=
Trianthema triquetra	0.1	10	
Triodia epactia	30	70	
Vachellia farnesiana	0.1	180	
Vigna lanceolata var. *lanceolata*	0.1	cr	RMQ14-22=
Waltheria indica	0.2	40	



Site	**RMQ33**				
Described by	CG	Date	25/06/2021	Type	Quadrat 50 x 50
Season	Excellent				
Zone	50 K	Easting/Northing		400469.66 mE, 7587047.85 mS	
Habitat	Crest and slopes of low stony hill				
Soil	SandyLoam				
Rock Type	Basalt				
Vegetation	*Acacia* spp. Mid Isolated Shrubs over a mixed Low Open to Sparse Shrubland over *Triodia wiseana* Hummock Grassland				
Veg Condition	E				
Fire Age	> 10 years				

Taxon	Cover (%)	Height (cm)	Collection no.
Acacia ancistrocarpa	0.3	200	RMQ33-08
Acacia inaequilatera	1	300	
Bonamia pannosa	0.1	10	RMQ33-09
Bonamia pilbarensis	1	25	RMQ33-01
Bulbostylis barbata	0.2	20	
Corchorus tectus	0.1	10	RMQ20-16=
Cucumis variabilis	0.1	cr	
Dysphania kalpari	0.1	15	RMQ33-05
Dysphania rhadinostachya subsp. *rhadinostachya*	0.5	40	RMQ33-06
Euphorbia boophthona	0.1	20	
Euphorbia vaccaria var. *vaccaria*	0.1	15	RMQ20-04=
Evolvulus alsinoides var. *villosicalyx*	0.1	25	RMQ20-24=
Fimbristylis dichotoma	0.1	25	RMQ20-07
Goodenia forrestii	0.1	25	RMQ22-22=

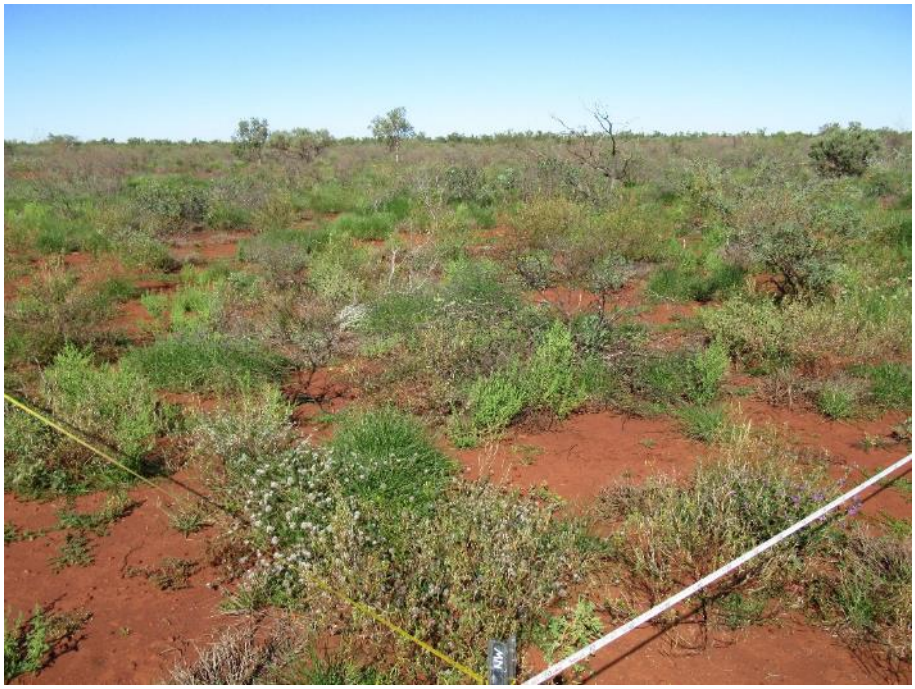
Taxon	Cover (%)	Height (cm)	Collection no.
Goodenia microptera	0.1	20	RMQ02-16
Hakea lorea subsp. *lorea*	0.1	190	RMQ22-07=
Heliotropium heteranthum	0.1	3	RMQ22-11=
Hibiscus sturtii var. *campylochlamys*	0.1	35	RMQ33-04
Paspalidium clementii	0.1	25	RMQ33-07
Phyllanthus erwinii	0.1	20	RMQ20-11=
Polycarpaea corymbosa	0.2	20	
Polycarpaea holtzei	0.1	5	
Portulaca oleracea	0.1	5	
Pterocaulon sphacelatum	0.1	90	
Ptilotus astrolasius	0.1	15	
Ptilotus auriculifolius	0.1	35	RMQ20-01=
Ptilotus axillaris	0.1	20	
Ptilotus exaltatus	0.1	110	
Senna glutinosa subsp. *pruinosa*	0.1	15	
Senna notabilis	0.1	30	
Sida arsiniata	0.1	30	RMQ33-03
Sida echinocarpa	0.1	70	RMQ20-13=
Solanum diversiflorum	0.1	35	
Sporobolus australasicus	0.1	20	
Streptoglossa decurrens	0.1	50	
Synaptantha tillaeacea var. *tillaeacea*	0.1	10	RMQ33-02
Trianthema triquetra	0.1	10	RMQ20-21=
Trigastrotheca molluginea	0.1	10	
Triodia epactia	0.1	30	
Triodia wiseana	35	70	

Site	**RMQ34**				
Described by	BRM	Date	25/06/2021	Type	Quadrat 25 x 100
Season	Excellent				
Zone	50 K	Easting/Northing		398577.55 mE, 7591823.79 mS	
Habitat	Minor flow line				
Soil	SandyLoam				
Rock Type	Iron stone				
Vegetation	*Corymbia hamerleyana* Low Open Woodland over *Acacia citrinoviridis* and *Gossypium robinsonii* Tall Sparse Shrubland over *Triodia epactia*, *Cenchrus ciliaris* and other mixed species Grassland / Forbland				
Veg Condition	VG				
Fire Age	>8 yrs since fire				

Taxon	Cover (%)	Height (cm)	Collection no.
Abutilon aff. *fraseri*	0.1	90	RMQ34-24
Abutilon cunninghamii	0.1	60	RMQ34-19
Abutilon lepidum	0.1	90	RMQ34-18
Abutilon otocarpum	0.1	60	
Abutilon sp. Pilbara (W.R. Barker 2025)	0.1	45	
Acacia arida	0.5	190	
Acacia atkinsiana	0.1	300	
Acacia bivenosa	0.1	230	
Acacia citrinoviridis	5	400	
Acacia inaequilatera	0.5	300	
Acacia ligulata	0.1	220	RMQ34-27
Acacia pyrifolia var. *pyrifolia*	0.1	230	
Acacia trachycarpa	0.3	450	
Acacia tumida var. *pilbarensis*	1	350	

Taxon	Cover (%)	Height (cm)	Collection no.
Afrohybanthus aurantiacus	0.1	40	
Alternanthera nana	0.1	20	RMQ34-12
Aristida holathera var. *holathera*	0.1	50	
Arivela viscosa	3	130	
Boerhavia coccinea	0.1	20	RMQ34-14
Bonamia erecta	0.3	45	
Bonamia pannosa	0.1	35	RMQ34-10
Bonamia pilbarensis	0.1	5	
Bulbostylis barbata	0.1	20	
Calandrinia ptychosperma	0.1	15	RMQ34-15
Cenchrus ciliaris	1.5	50	
Cenchrus setiger	0.1	60	
Corchorus sidoides subsp. *sidoides*	0.1	40	RMQ34R-01
Corchorus sidoides subsp. *sidoides*	0.1	25	RMQ34-21
Corchorus tridens	0.1	20	RMQ34-13
Corymbia hamersleyana	8	600	
Crotalaria medicaginea	0.1	50	
Cucumis variabilis	0.1	100	
Cymbopogon ambiguus	0.1	110	
Digitaria ctenantha	0.2	40	RMQ34-05
Duperreya commixta	0.1	cr	
Dysphania melanocarpa forma *melanocarpa*	0.1	20	RMQ34-16
Dysphania rhadinostachya subsp. *rhadinostachya*	0.1	30	RMQ19=
Eragrostis cumingii	0.2	20	RMQ34-04
Eremophila longifolia	0.1	140	
Eriachne aristidea	0.1	35	
Eriachne mucronata	0.1	40	
Eriachne tenuiculmis	0.1	50	
Eucalyptus leucophloia	1	800	
Euphorbia boophthona	0.1	60	RMQ34-07
Euphorbia trigonosperma	0.1	60	RMQ34-09
Euphorbia vaccaria var. *vaccaria*	0.1	15	RMQ34-17
Evolvulus alsinoides var. *decumbens*	0.1	30	RMQ34-08
Evolvulus alsinoides var. *villosicalyx*	0.1	20	
Goodenia microptera	0.1	45	RMQ19-15=
Gossypium australe	0.1	70	
Gossypium robinsonii	1	250	
Grevillea pyramidalis	0.2	350	
Grevillea wickhamii subsp. *hispidula*	0.1	90	RMQ34-26
Hakea lorea subsp. *lorea*	0.1	220	
Hibiscus sturtii var. *campylochlamys*	0.1	15	RMQ18-05=
Hibiscus sturtii var. *platychlamys*	0.1	30	
Indigofera colutea	0.1	20	
Ipomoea muelleri	0.1	45	RMQ34-03
Ipomoea polymorpha	0.1	15	RMQ34-02
Jasminum didymum subsp. *lineare*	0.1	150	
Malvastrum americanum	0.5	60	

Taxon	Cover (%)	Height (cm)	Collection no.
Melhania oblongifolia	0.1	80	
Nicotiana sp.	0.1	3	RMQ34-22
Notoleptopus decaisnei	1	50	
Paraneurachne muelleri	0.1	40	
Paspalidium clementii	0.1	15	RMQ34-01
Paspalidium rarum	0.1	30	RMQ31-15=
Perotis rara	0.1	12	
Phyllanthus erwinii	0.1	30	
Phyllanthus maderaspatensis	0.1	30	
Polycarpaea corymbosa	0.1	15	
Portulaca oleracea	0.1	2	
Ptilotus appendiculatus	0.1	60	RMQ21-01
Ptilotus astrolasius	0.1	30	
Ptilotus axillaris	1	20	
Ptilotus exaltatus	0.1	40	
Ptilotus fusiformis	0.1	40	
Rhynchosia minima	0.3	40	
Senna artemisioides subsp. *oligophylla*	0.1	190	
Senna notabilis	0.1	30	
Setaria dielsii	0.1	45	RMQ34-11
Sida arsiniata	0.1	40	
Sida echinocarpa	0.1	40	
Sida fibulifera	0.5	40	RMQ34-06
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	130	
Solanum cleistogamum	0.1	40	RMQ31-23=
Solanum diversiflorum	0.5	50	
Sporobolus australasicus	0.1	20	
Streptoglossa decurrens	0.1	45	
Striga curviflora	0.1	40	RMQ34-25
Stylobasium spathulatum	0.3	210	
Themeda triandra	0.1	150	
Trachymene oleracea	0.1	120	
Trianthema pilosa	0.1	10	
Trianthema triquetra	0.1	10	
Tribulus hirsutus	0.1	10	
Tribulus macrocarpus	0.1	10	
Trichodesma zeylanicum var. *zeylanicum*	0.1	140	
Trigastrotheca molluginea	0.1	30	
Triodia epactia	20	60	
Triodia pisoliticola	0.1	60	RMQ34-20
Triodia wiseana	0.3	40	
Triumfetta clementii	0.1	45	RMQ18-08=
Waltheria indica	0.1	45	



Site	**RMQ35**				
Described by	KM	Date	25/06/2021	Type	Quadrat 50 x 50
Season	Excellent				
Zone	50 K	Easting/Northing		398867 mE, 7592699 mS	
Habitat	Plain				
Soil	ClayLoam				
Rock Type	Colluvial mix including ironstone				
Vegetation	*Acacia synchronicia* and *Senna artemisioides* subsp. *oligophylla* Mid Sparse Shrubland over a mixed Low Open Shrubland / Forbland over *Triodia epactia* Open Hummock Grassland				
Veg Condition	E				
Fire Age	Greater than 5 years				

Taxon	Cover (%)	Height (cm)	Collection no.
Abutilon lepidum	0.1	90	
Abutilon otocarpum	0.3	40	RMQ14-27=
Abutilon sp. Pilbara (W.R. Barker 2025)	0.3	40	RMQ14-02=
Acacia synchronicia	2	150	RMQ16-02=
Acacia xiphophylla	0.1	150	RMQ16-01=
Amaranthus cuspidifolius	0.1	40	RMQ28=
Arivela viscosa	3	90	
Boerhavia repleta	0.2	20	RMQ14-12=
Bulbostylis barbata	0.5	20	
Calandrinia ptychosperma	2	2	
Corchorus tectus	0.1	100	RMQ09-19=
Corymbia candida subsp. *candida*	0.1	60	RMQ28-03=
Cullen martinii	0.1	40	RMQ35-06
Cyperus squarrosus	0.1	10	RMQ32=

Taxon	Cover (%)	Height (cm)	Collection no.
Dactyloctenium radulans	0.1	20	
Dolichocarpa crouchiana	0.1	25	RMQ03-05=
Dysphania kalpari	0.1	15	
Dysphania rhadinostachya subsp. *inflata*	3	40	RMQ01-06=
Eragrostis crateriformis	0.1	20	RMQ35-08
Eragrostis cumingii	0.1	5	RMQ14-05=
Eragrostis dielsii	1.5	30	RMQ35-13
Eriachne pulchella subsp. *dominii*	0.1	10	RMQ01-07=
Euphorbia boophthona	0.5	40	RMQ35-10
Gomphrena cunninghamii	0.1	20	RMQ35-07
Goodenia forrestii	0.1	30	RMQ09-13=
Goodenia microptera	0.2	30	RMQ01-12=
Goodenia microptera	0.1	40	
Gossypium australe	0.1	30	
Heliotropium heteranthum	0.2	1	RMQ35-03
Hibiscus sturtii var. *campylochlamys*	0.1	30	RMQ09-20=
Paspalidium clementii	0.1	30	RMQ01-23=
Phyllanthus erwinii	0.1	20	RMQ14-24=
Polycarpaea corymbosa	0.1	10	
Portulaca oleracea	3	3	
Ptilotus aervoides	0.1	10	RMQ35R-01
Ptilotus appendiculatus	0.1	10	RMQ14-14=
Ptilotus astrolasius	1	40	
Ptilotus auriculifolius	0.1	45	RMQ16-11=
Ptilotus axillaris	2	10	RMQ01-24=
Ptilotus calostachyus	0.1	60	
Ptilotus clementii	0.1	40	
Ptilotus exaltatus	0.1	70	
Ptilotus fusiformis	0.1	40	RMQ01-05=
Ptilotus incanus	2	10	RMQ35-02
Sclerolaena costata	0.1	40	RMQ35-06
Senna artemisioides subsp. *oligophylla*	1.5	120	
Senna notabilis	1	60	
Sida arsiniata	1	40	RMQ09-06=
Sida echinocarpa	0.1	40	RMQ09-07=
Solanum diversiflorum	0.2	40	RMQ01-10=
Solanum horridum	0.1	20	RMQ01-08=
Sporobolus australasicus	0.5	20	
Streptoglossa bubakii	0.1	40	RMQ35-12
Streptoglossa decurrens	0.1	40	RMQ35-11
Synaptantha tillaeacea var. *tillaeacea*	2	1	RMQ14-07=
Tephrosia aff. *remotiflora* 'Peedamulla form'	0.1	45	RMQ35-04
Trianthema triquetra	3	3	
Tribulus astrocarpus	0.1	1	RMQ09-14=
Tribulus macrocarpus	0.2	1	RMQ16-09=
Trigastrotheca molluginea	0.1	3	
Triodia epactia	12	40	RMQ35-01

Site	**RMQ36**				
Described by	BRM	Date	27/08/2021	Type	Quadrat
Season	Excellent				
Zone	50 K	Easting/Northing			
Habitat	Minor creek (base of gorge)				
Soil	Sandy loam				
Rock Type	Iron stone				
Vegetation	*Eucalyptus leucophloia* Low Open Woodland over *Gossypium robinsonii* and *Acacia tumida* Tall Open Shrubland over *Acacia arida* Mid Open Shrubland Over *Triodia wiseana*, (*Triodia pisoliticola*) Open Hummock Grassland				
Veg Condition	E				
Fire Age	> 10 yrs				

Taxon	Cover (%)	Height (cm)	Collection no.
Abutilon sp. Dioicum (A.A. Mitchell PRP 1618)	0.1	80	RMQ36-03
Abutilon sp. Pilbara (W.R. Barker 2025)	0.1	70	
Acacia ancistrocarpa	0.1	210	
Acacia arida	5	180	
Acacia atkinsiana	0.1	250	RMQ36-16
Acacia bivenosa	0.5	220	
Acacia inaequilatera	0.1	140	
Acacia trachycarpa	0.1	80	
Acacia tumida var. *pilbarensis*	30	350	
Amaranthus undulatus	0.1	40	RMQ36-11
Arivela viscosa	0.1	45	
Boerhavia coccinea	0.1	25	RMQ36-17
Cassytha capillaris	0.1	40	RMQ36-18

Taxon	Cover (%)	Height (cm)	Collection no.
Corchorus tectus	0.1	20	RMQ36-05
Corymbia hamersleyana	0.1	450	
Cucumis variabilis	0.1	30	
Cullen martinii	0.1	35	RMQ36-07
Cymbopogon ambiguus	1	40	
Dysphania rhadinostachya	0.1	60	RMQ36-15
Eriachne mucronata	0.1	40	
Eucalyptus leucophloia	3	800	
Euphorbia biconvexa	0.1	20	RMBMOpp02=
Euphorbia tannensis subsp. *eremophila*	0.1	40	RMQ36-14
Gossypium australe	0.1	90	
Gossypium robinsonii	40	260	
Hibiscus coatesii	0.1	25	RMQ36-08
Hibiscus sturtii ? var. *campylochlamys*	0.1	35	RMQ36-06
Notoleptopus decaisnei	0.1	10	
Paspalidium clementii	0.5	20	RMQ36-04
Petalostylis labicheoides	0.1	160	
Pterocaulon sphacelatum	0.1	45	
Ptilotus axillaris	0.1	20	
Ptilotus fusiformis	0.1	40	
Ptilotus incanus	0.1	40	RMQ36-09
Rhynchosia minima	0.1	30	
Senna glutinosa subsp. *glutinosa*	0.1	180	
Senna notabilis	0.1	30	
Senna venusta	0.1	220	
Sida sp. Pilbara (A.A. Mitchell PRP 1543)	0.1	35	RMQ36-02
Solanum diversiflorum	0.1	45	
Solanum horridum	0.1	25	RMQ36-12
Tephrosia uniovulata	0.1	50	RMQ36-10
Themeda triandra	0.1	70	
Trichodesma zeylanicum var. *zeylanicum*	0.1	300	
Triodia pisoliticola	1	70	RMQ36-01
Triodia wiseana	20	60	
Triumfetta chaetocarpa	0.1	35	RMQ36-13
Solanum diversiflorum	0.1	45	
Solanum horridum	0.1	25	RMQ36-12
Tephrosia uniovulata	0.1	50	RMQ36-10
Themeda triandra	0.1	70	
Trichodesma zeylanicum var. *zeylanicum*	0.1	300	
Triodia pisoliticola	1	70	RMQ36-01
Triodia wiseana	20	60	
Triumfetta chaetocarpa	0.1	35	RMQ36-13

Site	**RMQ37**				
Described by	KMc	Date	27/08/2021	Type	Quadrat
Season	Excellent				
Zone	50 K	Easting/Northing			
Habitat	-				
Soil	Clay loam				
Rock Type	Ironstone				
Vegetation	Acacia bivenosa Mid Sparse Shrubland over Triodia wiseana Hummock Grassland				
Veg Condition	E				
Fire Age	-				

Taxon	Cover (%)	Height (cm)	Collection no.
Abutilon sp. Pilbara (W.R. Barker 2025)	0.1	30	RMQ37-04
Acacia bivenosa	1	150	
Arivela viscosa	0.1	30	
Corchorus tectus	0.1	30	RMQ12R-01=
Dysphania rhadinostachya	0.2	30	RMQ37-01
Eriachne mucronata	0.1	25	
Euphorbia vaccaria var. *vaccaria*	0.1	10	RMQ37-03
Gossypium australe	0.1	60	
Paspalidium clementii	0.2	10	
Ptilotus astrolasius	0.1	40	
Ptilotus calostachyus	0.1	70	
Ptilotus fusiformis	0.1	60	
Senna glutinosa subsp. *glutinosa*	0.1	120	
Senna notabilis	0.1	30	
Sida sp.	0.1	20	RMQ37-05
Solanum horridum	0.1	15	
Streptoglossa odora	0.1	40	RMQ37-02
Tribulus suberosus	0.1	70	
Triodia wiseana	50	70	

Site	**RMQ38**				
Described by	CG	Date	27/08/2021	Type	Quadrat
Season	Excellent				
Zone	50 K	Easting/Northing			
Habitat	Footslopes				
Soil	Sandy loam				
Rock Type	Ironstone				
Vegetation	*Acacia bivenosa* and *Acacia atkinsiana* Mid Sparse to Open Shrubland over *Triodia wiseana* Open Hummock Grassland				
Veg Condition	E				
Fire Age	5-10 yrs				

Taxon	Cover (%)	Height (cm)	Collection no.
Abutilon sp. Pilbara (W.R. Barker 2025)	0.1	25	RMQ38-10
Acacia ancistrocarpa	0.1	120	RMQ38-11
Acacia arida	0.1	70	
Acacia atkinsiana	2	130	
Acacia bivenosa	8	100	
Arivela viscosa	0.1	70	
Bonamia pannosa	0.1	10	
Corchorus tectus	0.1	30	
Dysphania rhadinostachya subsp. *rhadinostachya*	0.5	40	
Eriachne aristidea	0.1	35	RMQ38-05
Eriachne benthamii	0.1	15	
Eriachne pulchella	0.1	15	
Eriachne pulchella subsp. *dominii*	0.1	7	RMQ38-02
Euphorbia boophthona	0.1	40	RMQ38-04

Taxon	Cover (%)	Height (cm)	Collection no.
Euphorbia vaccaria var. *vaccaria*	0.1	10	RMQ38-03
Goodenia microptera	0.1	50	RMQ38-08
Hakea lorea subsp. *lorea*	0.1	200	
Hibiscus sturtii	0.1	10	RMQ38-06
Ptilotus astrolasius	0.1	40	
Ptilotus axillaris	0.1	80	
Ptilotus fusiformis	0.1	40	
Senna glutinosa subsp. x *luerssenii*	0.5	30	RMQ38-01
Senna notabilis	0.1	40	
Sida arsiniata	0.1	35	
Sida echinocarpa	0.1	25	
Solanum diversiflorum	0.1	30	
Sporobolus australasicus	0.1	25	
Tribulus astrocarpus	0.1	20	
Triodia wiseana	15	70	
Triumfetta chaetocarpa	0.1	35	RMQ38-09

Site	**RMQ39**				
Described by	CG	Date	29/08/2021	Type	Quadrat 20 x 125
Season	Excellent				
Zone	50 K	Easting/Northing			
Habitat	Major creek line				
Soil	Sand				
Rock Type	Chert				
Vegetation	*Eucalyptus victrix* Mid Woodland over *Acacia tumida* var. *pilbarensis* and *Gossypium robinsonii* Tall Open Shrubland over a mixed Sparse Forbland				
Veg Condition	-				
Fire Age	5-10 yrs at start and recently burnt at end				

Taxon	Cover (%)	Height (cm)	Collection no.
Abutilon macrum	0.1	50	RMQ39-19
Abutilon otocarpum	0.1	60	
Abutilon sp. Pilbara (W.R. Barker 2025)	0.1	30	
Acacia atkinsiana	1	90	
Acacia bivenosa	0.1	90	
Acacia pyrifolia var. *pyrifolia*	0.1	30	
Acacia trachycarpa	0.1	100	
Acacia trachycarpa x *tumida* var. *pilbarensis*	0.1	150	RMQ39-12
Acacia tumida var. pilbarensis	12	500	
Afrohybanthus aurantiacus	0.1	40	
Alternanthera nana	0.1	30	RMQ39-04
Alternanthera nodiflora	0.1	20	RMQ39-15
Amaranthus cuspidifolius	0.1	20	RMQ14-28=
Arivela viscosa	0.1	40	

Taxon	Cover (%)	Height (cm)	Collection no.
Bergia pedicellaris	0.1	5	RMQ39-20
Blumea tenella	0.1	25	
Bonamia pilbarensis	0.1	10	
Calandrinia ptychosperma	0.1	1	RMQ14-08=
Calocephalus knappii	0.1	5	RMQ14R-03=
Cenchrus ciliaris	0.1	15	
Cenchrus setiger	0.1	10	
Centipeda minima subsp. *macrocephala*	0.5	5	RMQ39-02
Corchorus tectus	0.5	90	RMQ14-34=
Corymbia candida subsp. *candida*	1.5	800	
Corymbia hamersleyana	2	800	
Crotalaria medicaginea	0.1	90	
Cullen leucochaites	0.1	150	RMQ39-07
Cullen martinii	0.1	60	
Cynodon prostratus	0.1	10	RMQ14R-06=
Dysphania glomulifera	0.1	10	RMQ14-20=
Dysphania rhadinostachya	0.1	25	RMQ39-17
Echinochloa colona	0.1	40	RMQ39-05
Eragrostis cumingii	0.1	20	
Eragrostis tenellula	3	40	
Eremophila longifolia	0.1	30	
Eriachne ? *benthamii*	0.1	30	RMQ39-21
Eucalyptus victrix	25	1400	
Eulalia aurea	0.1	60	
Euphorbia biconvexa	0.1	20	RMQ39-06
Euphorbia vaccaria var. *vaccaria*	0.1	30	
Evolvulus alsinoides var. *decumbens*	0.1	25	
Evolvulus alsinoides var. *villosicalyx*	0.1	25	
Fimbristylis elegans	0.1	20	RMQ39-13
Goodenia forrestii	0.1	30	
Goodenia lamprosperma	0.25	40	
Gossypium australe	0.1	60	
Gossypium robinsonii	3	400	
Hibiscus sturtii var. *campylochlamys*	0.1	20	RMQ14R-01=
Indigofera boviperda	0.1	30	RMQ14-03=
Ipomoea muelleri	0.1	cr	
Isotropis atropurpurea	0.1	60	
Jasminum didymum subsp. *lineare*	0.1	cr	
Malvastrum americanum	0.1	40	
Marsilea costulifera	0.5	10	RMQ39-01
Melhania oblongifolia	0.1	60	
Notoleptopus decaisnei	0.1	20	
Paraneurachne muelleri	0.1	40	
Paspalidium clementii	0.1	10	
Petalostylis labicheoides	1	400	

Taxon	Cover (%)	Height (cm)	Collection no.
Phyllanthus erwinii	0.1	10	RMQ14-24=
Phyllanthus maderaspatensis	0.1	90	
Pluchea dunlopii	0.1	40	RMQ39-03
Pluchea ferdinandi-muelleri	0.1	40	RMQ39-03
Pluchea rubelliflora	0.1	40	
Portulaca oleracea	0.1	20	
Pterocaulon sphacelatum	0.1	60	
Ptilotus axillaris	0.1	20	
Rhynchosia minima	0.1	40	
Senna artemisioides subsp. *oligophylla*	0.1	25	
Senna notabilis	0.1	60	
Setaria verticillata	0.1	20	RMQ14R-08=
Sida fibulifera	0.1	20	RMQ39-16
Sida rohlenae subsp. rohlenae	0.1	60	RMQ39-18
Sida sp. L (A.M. Ashby 4202)	0.1	20	RMQ39-14
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	250	RMQ14-10=
Solanum diversiflorum	0.1	30	
Sporobolus australasicus	0.1	30	
Streptoglossa bubakii	0.1	60	RMQ14R-05=
Synaptantha tillaeacea var. *tillaeacea*	0.1	6	RMQ14-07=
Tephrosia rosea var. *Fortescue creeks*	0.1	60	
Tephrosia supina	0.1	80	RMQ39-10
Tephrosia uniovulata	0.1	50	RMQ39-11
Themeda triandra	0.1	120	
Trianthema triquetra	0.1	15	
Triodia epactia	0.5	20	
Triumfetta johnstonii	0.1	45	RMQ39-09
Vachellia farnesiana	0.1	60	
Vigna lanceolata var. *lanceolata*	0.1	cr	RMQ39-08
Wahlenbergia tumidifructa	0.1	20	RMQ39-22
Waltheria indica	0.1	50	

Site	**RMQ40**				
Described by	BRM	Date	30/08/2021	Type	Quadrat 50 x 50
Season	Excellent				
Zone	50 K	Easting/Northing		399022 mE, 7591271 mS	
Habitat	Banks, bed and islands of major creek				
Soil	-				
Rock Type	Basalt, ironstone, chert river stone				
Vegetation	*Eucalyptus victrix* and *Eucalyptus camaldulensis* Mid Woodland over *Melaleuca glomerata*, *Acacia trachycarpa*, *Acacia colei* var. *colei*, *Petalostylis labicheoides*, *Gossypium robinsonii* Tall Open Shrubland over *Corchorus tectus* Isolated Low Sparse Shrubland over *Triodia epactia* Sparse Hummock Grassland and *Cenchrus ciliaris*, (*Cenchrus setiger*) Open Tussock Grassland				
Veg Condition	G				
Fire Age	> 10 yrs				

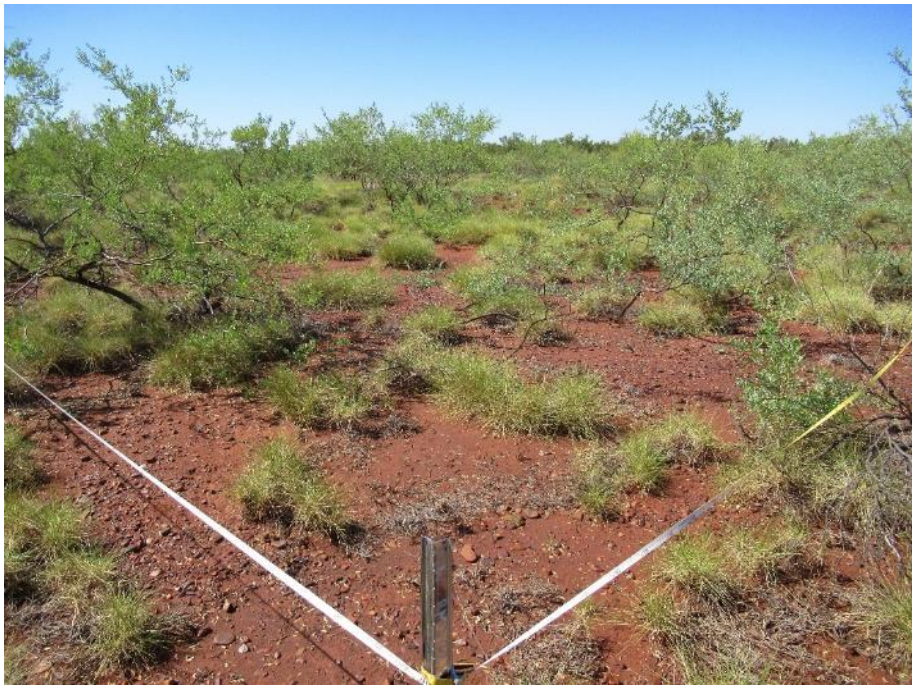
Taxon	Cover (%)	Height (cm)	Collection no.
Abutilon amplum	0.1	170	RMQ40-19
Abutilon lepidum	0.1	90	RMQ40-31
Abutilon sp. Pilbara (W.R. Barker 2025)	0.1	45	
Acacia colei var. *colei*	0.5	280	
Acacia pyrifolia var. *pyrifolia*	0.1	25	
Acacia trachycarpa	2.5	400	
Alternanthera nana	0.1	40	RMQ40-08
Alternanthera nodiflora	0.1	35	RMQ40-16
Amaranthus undulatus	0.1	110	RMQ40-20
Ammannia baccifera	0.1	30	RMQ40-21
Arivela viscosa	0.1	40	
Bergia ? *henshallii*	0.1	5	RMQ40-34
Bergia pedicellaris	0.1	12	RMQ40-22
Blumea tenella	0.1	15	RMQ40-28
Boerhavia coccinea	0.1	20	RMQ40-18
Bulbostylis barbata	0.1	15	

Taxon	Cover (%)	Height (cm)	Collection no.
Cenchrus ciliaris	20	45	
Cenchrus setiger	1	60	
Centaurium sp.	0.1	30	RMQ40-29
Centipeda minima subsp. *macrocephala*	0.1	20	RMQ40-23
Corchorus tectus	0.25	80	RMQ40-15
Crotalaria medicaginea	0.1	70	
Cyperus difformis	0.1	30	RMQ40-26
Cyperus vaginatus	0.25	80	
Eleocharis atropurpurea	0.1	4	RMQ40-27
Eragrostis cumingii	0.1	10	
Eragrostis tenellula	0.1	20	RMQ40-14
Eragrostis tenellula	0.1	40	RMQ40-24
Eriachne pulchella	0.1	15	
Eucalyptus camaldulensis subsp. *reflugens*	10	1200	
Eucalyptus victrix	15	1300	
Eulalia aurea	0.1	80	
Euphorbia boophthona	0.1	40	RMQ40-07
Euphorbia careyi	0.1	25	RMQ40-11
Euphorbia trigonosperma	0.1	40	RMQ40-02
Evolvulus alsinoides var. *decumbens*	0.1	40	RMQ40-04
Goodenia lamprosperma	0.1	45	
Gossypium australe	0.1	100	
Gossypium robinsonii	0.5	300	
Hibiscus sturtii var. *campylochlamys*	0.1	25	RMQ40-32
Hybanthus aurantiacus	0.1	70	
Ipomoea muelleri	0.1	90	
Iseilema membranaceum	0.1	20	RMQ40-13
Malvastrum americanum	0.1	40	
Melaleuca glomerata	40	550	
Notoleptopus decaisnei	0.1	35	
Paspalidium clementii	0.1	20	RMQ40-03
Passiflora foetida var. *hispida*	0.1	350	RMQ40-17
Petalostylis labicheoides	1	250	
Phyllanthus erwinii	0.1	15	RMQ40-06
Phyllanthus maderaspatensis	0.1	40	
Pluchea dentex	0.1	25	RMQ40-33
Pluchea rubelliflora	0.1	35	RMQ40-25
Polycarpaea longiflora	0.1	35	
Pterocaulon sphacelatum	0.1	30	
Ptilotus astrolasius	0.1	40	
Ptilotus exaltatus	0.1	80	
Rhynchosia minima	0.1	20	
Schenkia australis	0.1	30	RMQ40-30
Senna notabilis	0.1	20	
Sesbania cannabina	0.1	300	
Setaria verticillata	0.1	40	RMQ40-01
Sida sp. L (A.M. Ashby 4202)	0.1	45	RMQ40-09
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	60	
Stemodia grossa	0.1	5	
Streptoglossa bubakii	0.1	50	
Swainsona formosa	0.1	70	
Tephrosia rosea var. Fortescue creeks	0.1	130	RMQ40-05
Themeda triandra	0.25	120	
Triodia epactia	2.5	50	
Vachellia farnesiana	0.1	300	
Vigna lanceolata var. *lanceolata*	0.25	50	RMQ40-10
Vigna lanceolata var. *lanceolata*	0.1	40	RMQ40-35
Wahlenbergia tumidifructa	0.1	40	RMQ40-12
Waltheria indica	0.1	60	

Site	**RMQ41**				
Described by	KMc	Date	30/08/2021	Type	Quadrat 50 x 50
Season	Excellent				
Zone	50 K	Easting/Northing		398593 mE 7590094 mS	
Habitat	Floodplain (broad braided channel mosaic). This is low stony rise between channels				
Soil	Sandy loam				
Rock Type	Mixed colluvial ironstone basalt quartz Silverstein				
Vegetation	*Corymbia hamersleyana* (*Eucalyptus victrix*) LowOpen Woodland over *Acacia sclerosperma*, *A. trachycarpa*, *A. synchronicia* Tall Open Shrubland over *Triodia epactia* (*T. wiseana*) Open Hummock Grassland.				
Veg Condition	VG-G				
Fire Age	> 10 yrs				

Taxon	Cover (%)	Height (cm)	Collection no.
Abutilon cunninghamii	0.1	90	RMQ41-01
Abutilon lepidum	0.1	90	RMQ41-04
Abutilon malvifolium	0.1	10	RMQ41-07
Abutilon otocarpum	0.1	50	
Acacia pyrifolia var. *pyrifolia*	0.2	190	
Acacia sclerosperma subsp. *sclerosperma*	10	300	
Acacia synchronicia	2	180	
Acacia trachycarpa	0.5	300	
Afrohybanthus aurantiacus	0.1	20	
Alternanthera nana	0.1	10	RMQ41-03
Arivela viscosa	0.1	40	
Boerhavia coccinea	0.1	20	RMQ41-06
Bulbostylis barbata	0.1	10	
Cenchrus ciliaris	2	35	

Taxon	Cover (%)	Height (cm)	Collection no.
Cenchrus setiger	0.1	40	
Corchorus tectus	0.1	30	
Corchorus tridens	0.1	10	
Corymbia hamersleyana	8	800	
Dactyloctenium radulans	0.1	10	
Dysphania glomulifera subsp. *eremaea*	0.1	10	
Dysphania rhadinostachya	0.1	30	
Eucalyptus victrix	1	1000	
Euphorbia boophthona	0.2	20	
Euphorbia vaccaria var. *vaccaria*	0.1	10	
Evolvulus alsinoides var. *villosicalyx*	0.1	20	
Goodenia microptera	0.1	30	RMQ41-09
Gossypium australe	0.1	90	
Hakea lorea subsp. *lorea*	0.1	350	
Hibiscus sturtii var. *campylochlamys*	0.1	40	RMQ41-08
Hibiscus sturtii var. *campylochlamys*	0.2	20	RMQ14R=
Malvastrum americanum	0.1	40	
Melhania oblongifolia	0.1	40	
Myriocephalus sp.	0.1	10	RMQ14R=
Notoleptopus decaisnei	0.5	40	
Paspalidium clementii	0.2	10	
Phyllanthus erwinii	0.1	10	
Phyllanthus maderaspatensis	0.1	30	
Polycarpaea holtzei	0.1	3	
Portulaca oleracea	0.2	20	
Ptilotus appendiculatus	0.1	50	
Ptilotus astrolasius	0.2	30	
Ptilotus axillaris	0.2	20	
Ptilotus exaltatus	0.1	90	
Ptilotus fusiformis	0.1	40	
Ptilotus obovatus	0.1	70	
Rhynchosia minima	0.1	cr	
Sclerolaena costata	0.3	30	RMQ41-02
Senna artemisioides subsp. *oligophylla*	0.2	70	
Senna notabilis	0.1	20	
Setaria verticillata	0.1	30	RMQ14R=
Sida arsiniata	0.1	35	
Sida fibulifera	0.1	30	RMQ41-05
Solanum cleistogamum	0.1	30	
Solanum diversiflorum	0.2	40	
Sporobolus australasicus	0.5	10	
Trianthema triquetra	0.3	10	
Tribulus macrocarpus	0.1	10	
Tribulus terrestris	0.1	10	
Triodia epactia	25	40	
Triodia wiseana	3	50	
Triumfetta clementii	0.1	40	
Vachellia farnesiana	1	200	
Waltheria indica	0.1	70	



Site	**RMQ42**				
Described by	KMc	Date	31/08/2021	Type	Quadrat 50 x 50
Season	Excellent				
Zone	50 K	Easting/Northing		399182 mE, 7592476 mS	
Habitat	Low story rise in low lying undulating plain				
Soil	Fine sandy clay loam				
Rock Type	Colluvial mix				
Vegetation	*Acacia synchronicia* Tall Sparse Shrubland over *Triodia epactia* Sparse Hummock Grassland				
Veg Condition	E				
Fire Age	> 10 yrs				

Taxon	Cover (%)	Height (cm)	Collection no.
Abutilon sp. Pilbara (W.R. Barker 2025)	0.1	10	
Acacia atkinsiana	0.1	250	
Acacia synchronicia	0.2	300	
Arivela viscosa	0.1	30	
Bonamia pannosa	0.1	30	
Bulbostylis barbata	0.1	20	RMQ42-01
Corchorus tectus	0.1	40	
Cullen pogonocarpum	0.1	20	
Dactyloctenium radulans	0.1	10	
Dysphania rhadinostachya	0.1	10	
Eragrostis dielsii	0.1	10	
Eragrostis eriopoda	0.1	30	
Euphorbia boophthona	0.1	30	
Euphorbia vaccaria var. *vaccaria*	0.1	10	
Evolvulus alsinoides var. *villosicalyx*	0.1	10	

Taxon	Cover (%)	Height (cm)	Collection no.
Goodenia microptera	0.1	30	
Gossypium australe	0.1	30	
Hakea lorea subsp. *lorea*	0.1	300	
Hibiscus brachychlaenus	0.1	90	RMQ42-02
Hibiscus sturtii	0.1	5	
Indigofera colutea	0.1	15	
Paspalidium clementii	0.1	10	
Phyllanthus erwinii	0.1	20	
Polycarpaea corymbosa	0.1	10	
Portulaca oleracea	0.1	10	
Ptilotus astrolasius	0.1	40	
Ptilotus axillaris	0.1	10	
Ptilotus exaltatus	0.1	70	
Ptilotus fusiformis	0.1	20	
Sclerolaena costata	0.1	30	
Senna notabilis	0.1	30	
Sida arsiniata	0.1	30	
Solanum diversiflorum	0.1	10	
Sporobolus australasicus	0.1	15	
Streptoglossa decurrens	0.1	30	
Synaptantha tillaeacea var. *tillaeacea*	0.1	20	
Trianthema pilosa	0.2	10	
Trianthema triquetra	1	5	
Tribulus macrocarpus	0.1	10	
Trigastrotheca molluginea	0.1	20	
Triodia epactia	1	40	

Site	**RMQ43**				
Described by	BRM	Date	1/09/2021	Type	Quadrat 70 x 35
Season	Excellent				
Zone	50 K	Easting/Northing			
Habitat	Broad, shallow flow area				
Soil	Clay loam				
Rock Type	NA				
Vegetation	*Corymbia candida* Low Woodland over *Acacia trachycarpa* and *Acacia atkinsiana* Tall Closed Shrubland over *Triodia epactia* Hummock Grassland				
Veg Condition	VG				
Fire Age	Long unburnt				

Taxon	Cover (%)	Height (cm)	Collection no.
Acacia ancistrocarpa	5	350	
Acacia atkinsiana	5	350	
Acacia bivenosa	0.1	220	
Acacia colei var. *colei*	0.1	380	
Acacia inaequilatera	0.1	120	
Acacia pyrifolia var. *pyrifolia*	0.1	350	
Acacia synchronicia	0.1	150	
Acacia trachycarpa	70	250	
Acacia trachycarpa x *tumida* var. *pilbarensis*	0.5	320	RMQ43-15
Acacia tumida var. *pilbarensis*	0.5	450	
Alternanthera nana	0.1	30	RMQ43-06
Blumea tenella	0.1	15	
Bulbostylis barbata	0.1	12	
Bulbostylis turbinata	0.1	15	RMQ43-08
Bulbostylis turbinata	0.1	25	RMQ43-13
Calandrinia ptychosperma	0.1	5	

Taxon	Cover (%)	Height (cm)	Collection no.
Centipeda minima subsp. *minima*	0.1	15	
Chrysopogon fallax	0.1	50	
Corchorus sidoides subsp. *sidoides*	0.1	35	
Corchorus tectus	0.1	60	RMQ43-11
Corymbia candida subsp. *candida*	12	600	
Corymbia hamersleyana	0.1	400	
Cullen martinii	0.1	90	
Cymbopogon ambiguus	0.1	120	
Cymbopogon obtectus	0.1	90	
Eragrostis cumingii	0.1	20	
Eragrostis dielsii	0.1	10	
Eragrostis leptocarpa	0.25	30	RMQ43-03
Eragrostis tenellula	0.1	30	RMQ43-05
Eremophila longifolia	0.1	60	
Eriachne flaccida	0.1	45	RMQ43-07
Eulalia aurea	0.1	50	
Euphorbia biconvexa	0.1	45	RMQ43-09
Evolvulus alsinoides var. *villosicalyx*	0.1	20	
Goodenia nuda	0.1	60	RMQ43-10
Gossypium australe	0.1	140	
Gossypium robinsonii	0.1	320	
Hakea lorea subsp. *lorea*	0.1	110	
Hybanthus aurantiacus	0.1	40	
Indigofera boviperda subsp. *boviperda*	1	25	
Ipomoea ? plebeia	0.1	20	RMQ43-16
Ipomoea muelleri	0.1	110	
Ipomoea sp.	0.1	20	
Isotropis atropurpurea	0.1	40	RMQ43-04
Jasminum didymum subsp. *lineare*	0.1	80	
Malvastrum americanum	0.1	60	
Paspalidium clementii	0.1	20	
Petalostylis labicheoides	0.25	250	
Phyllanthus erwinii	0.1	20	
Phyllanthus maderaspatensis	0.1	45	
Pluchea rubelliflora	0.1	40	
Pterocaulon serrulatum var. *velutinum*	0.1	45	RMQ43-17
Pterocaulon sphacelatum	0.1	45	
Rhynchosia minima	0.3	40	
Senna glutinosa subsp. *glutinosa*	0.1	120	
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	0.1	70	
Streptoglossa decurrens	0.1	50	
Synaptantha tillaeacea var. *tillaeacea*	0.1	10	RMQ43-01
Themeda triandra	0.5	120	
Triodia epactia	65	90	
Triodia wiseana	0.1	80	
Vachellia farnesiana	0.1	280	
Vigna lanceolata var. *lanceolata*	0.1	25	
Wahlenbergia tumidifructa	0.1	30	RMQ43-12
Waltheria indica	0.1	45	

Site	**RMQ44**				
Described by	KMc	Date	1/09/2021	Type	Quadrat 50 x 50
Season	Excellent				
Zone	50 K	Easting/Northing		399152 mE, 7591462 mS	
Habitat	Low stony rise in floodplain				
Soil	Sandy loam				
Rock Type	Mixed colluvial ironstone, silcrete, basalt.				
Vegetation	*Acacia trachycarpa* Tall Shrubland over *Triodia epactia* Hummock Grassland (Emergent *Eucalyptus victrix* near edge and Scattered *Corymbia hamersleyana* and *Corymbia candida* throughout vegetation type).				
Veg Condition	VG				
Fire Age	> 10 yrs				

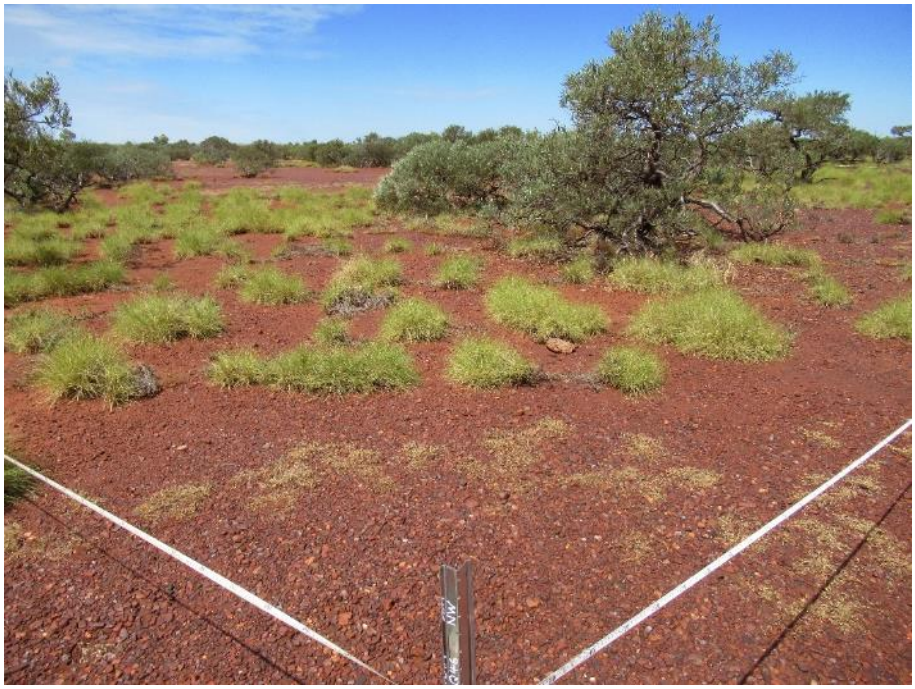
Taxon	Cover (%)	Height (cm)	Collection no.
Abutilon lepidum	0.1	70	RMQ44-02
Abutilon otocarpum	0.1	30	
Acacia sclerosperma subsp. *sclerosperma*	0.1	300	
Acacia trachycarpa	35	300	
Afrohybanthus aurantiacus	0.1	40	
Alternanthera nana	0.1	20	RMQ44-11
Amaranthus cuspidifolius	0.1	25	RMQ44-09
Amyema miquelii	0.1	parasite	
Arivela viscosa	0.2	90	
Boerhavia coccinea	0.1	20	RMQ44-12
Bonamia pannosa	0.1	10	
Bonamia pilbarensis	0.1	20	RMQ44-04
Bulbostylis barbata	0.2	20	
Calandrinia ptychosperma	0.1	10	
Cenchrus ciliaris	1	40	

Taxon	Cover (%)	Height (cm)	Collection no.
Cenchrus setiger	2	40	
Corchorus tectus	0.1	60	RMQ44-06
Corchorus tridens	0.1	10	
Corymbia hamersleyana	0.1	180	
Dactyloctenium radulans	0.1	10	
Dysphania rhadinostachya	0.2	30	RMQ44-03
Eragrostis crateriformis	0.1	20	RMQ44-13
Eragrostis dielsii	0.2	10	
Eucalyptus victrix	1	1500	
Euphorbia boophthona	0.1	80	RMQ44-05
Euphorbia tannensis subsp. *eremophila*	0.1	80	RMQ44-05
Euphorbia vaccaria var. *vaccaria*	0.1	10	
Evolvulus alsinoides var. *villosicalyx*	0.1	20	
Goodenia microptera	0.1	60	
Gossypium australe	0.1	70	
Hakea lorea subsp. *lorea*	0.1	90	
Hibiscus sturtii var. *campylochlamys*	0.1	40	RMQ44-08
Indigofera colutea	0.1	20	
Ipomoea muelleri	0.1	10	
Malvastrum americanum	0.1	30	
Notoleptopus decaisnei	0.2	40	
Paspalidium clementii	0.2	30	
Perotis rara	0.1	10	
Phyllanthus erwinii	0.1	15	
Polycarpaea corymbosa	0.1	10	
Portulaca oleracea	0.1	10	
Pterocaulon sphacelatum	0.1	70	
Ptilotus astrolasius	0.1	30	
Ptilotus auriculifolius	0.1	30	
Ptilotus axillaris	0.1	10	
Ptilotus exaltatus	0.1	90	
Rhynchosia minima	0.1	cr	
Senna artemisioides subsp. *oligophylla*	0.1	70	
Senna notabilis	0.3	90	
Setaria verticillata	0.1	40	RMQ14R=
Sida arsiniata	0.1	40	
Sida clementii	0.2	90	RMQ44-01
Sida sp. L (A.M. Ashby 4202)	0.2	20	
Solanum cleistogamum	0.1	20	
Solanum diversiflorum	0.2	50	
Sporobolus australasicus	0.5	15	
Streptoglossa bubakii	0.1	50	RMQ44-10
Synaptantha tillaeacea var. *tillaeacea*	0.1	10	
Trianthema triquetra	0.2	10	
Tribulus macrocarpus	0.5	10	RMQ44-07
Tribulus macrocarpus	0.1	10	
Tribulus terrestris	0.1	10	
Trichodesma zeylanicum var. *zeylanicum*	0.1	200	
Trigastrotheca molluginea	0.1	10	
Triodia epactia	35	60	
Triodia wiseana	1	70	
Triumfetta clementii	0.1	40	
Waltheria indica	0.1	70	

Site	**RMQ45**				
Described by	BRM	Date	2/09/2021	Type	Quadrat 62.5 x 40
Season	Excellent				
Zone	50 K	Easting/Northing		399252 mE, 7589642 mS	
Habitat	Plain (very gently sloping west)				
Soil	Clay loam				
Rock Type	Areas of ironstone pebbles, gravel				
Vegetation	*Acacia synchronicia* Tall Open Shrubland over *Ptilotus astrolasius* Low Sparse Shrubland over *Triodia epactia* Open Hussock Grassland with *Peplidium muelleri*, *Trianthema triquetra* Sparse Forbland				
Veg Condition	E				
Fire Age	8-10 yrs				

Taxon	Cover (%)	Height (cm)	Collection no.
Abutilon otocarpum	0.1	25	
Abutilon sp. Pilbara (W.R. Barker 2025)	0.1	90	
Acacia atkinsiana	0.1	130	
Acacia synchronicia	15	260	
Acacia xiphophylla	0.1	130	
Arivela viscosa	0.1	110	
Bonamia pilbarensis	0.1	10	RMQ45-06
Bonamia pilbarensis	0.1	5	RMQ45-11
Bulbostylis barbata	0.1	15	
Calandrinia ptychosperma	0.1	10	
Corchorus tectus	0.1	60	
Cynodon prostratus	0.25	5	RMQ45-04
Cyperus iria	0.1	45	RMQ45-15

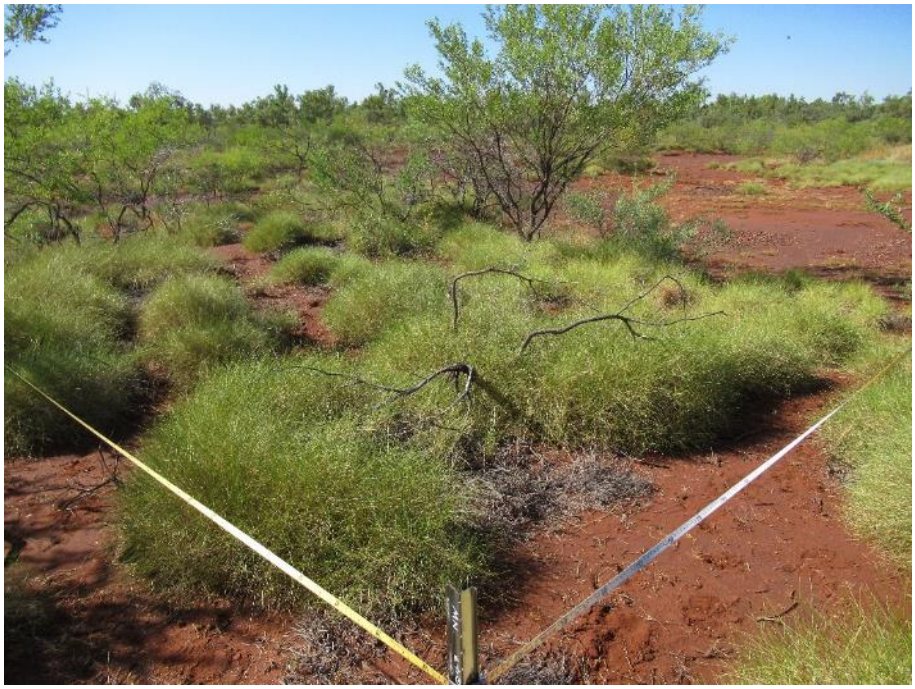
Taxon	Cover (%)	Height (cm)	Collection no.
Dactyloctenium radulans	0.1	25	
Dysphania rhadinostachya	0.1	20	RMQ45-05
Dysphania rhadinostachya	0.1	35	RMQ45-02
Eragrostis crateriformis	0.1	30	RMQ45-01
Eragrostis cumingii	0.1	15	
Eragrostis dielsii	0.1	15	
Euphorbia boophthona	0.1	40	RMQ45-03
Euphorbia vaccaria var. *vaccaria*	0.1	15	
Evolvulus alsinoides var. *villosicalyx*	0.1	30	
Fimbristylis ? dichotoma	0.1	30	RMQ45-14
Goodenia microptera	0.1	45	RMQ45-07
Hibiscus sturtii var. *campylochlamys*	0.1	25	RMQ45-12
Indigofera boviperda subsp. *boviperda*	0.1	70	
Marsilea costulifera	0.1	10	RMQ45-16
Paspalidium clementii	0.1	40	
Peplidium muelleri	3	2	
Phyllanthus erwinii	0.1	20	
Polycarpaea corymbosa	0.1	12	
Portulaca oleracea	0.1	15	
Pterocaulon sphacelatum	0.1	60	
Ptilotus astrolasius	0.25	45	
Ptilotus axillaris	0.1	15	
Ptilotus exaltatus	0.1	80	
Ptilotus fusiformis	0.1	40	
Salsola australis	0.1	40	
Sclerolaena costata	0.1	50	RMQ45-13
Sclerolaena costata	0.1	15	RMQ45-09
Senna artemisioides subsp. *oligophylla*	0.1	80	
Senna notabilis	0.1	50	
Sida arsiniata	0.1	45	
Sida echinocarpa	0.1	45	
Sida echinocarpa	0.1	130	RMQ45-10
Solanum diversiflorum	0.1	80	
Sporobolus australasicus	0.1	15	
Streptoglossa decurrens	0.1	40	
Stylobasium spathulatum	0.1	140	
Trianthema triquetra	2.5	15	
Tribulus macrocarpus	0.1	20	
Triodia epactia	15	80	
Triumfetta clementii	0.1	40	



Site	**RMQ46**				
Described by	KMc	Date	2/09/2021	Type	Quadrat 50 x 50
Season	Excellent				
Zone	50 K	Easting/Northing		400168 mE, 7589506 mS	
Habitat	Low stony undulating plain				
Soil	Clay				
Rock Type	Basalt detrital				
Vegetation	*Acacia xiphiophylla* Tall Sparse Shrubland over Low Sparse Chenopod Shrubland over *Triodia epactia* Open Hummock Grassland / *Trianthema triquetra* Sparse Forbland / *Cynodon prostratus* Sparse Tussock Grassland				
Veg Condition	E				
Fire Age	> 10 yrs				

Taxon	Cover (%)	Height (cm)	Collection no.
Abutilon lepidum	0.1	90	
Acacia xiphophylla	8	350	
Boerhavia sp.	0.1	20	
Cynodon prostratus	1	1	
Dysphania rhadinostachya	0.1	30	
Enchylaena tomentosa	0.2	90	RMQ46-04
Eragrostis dielsii	0.1	10	
Evolvulus alsinoides var. *villosicalyx*	0.1	10	
Gossypium australe	0.1	40	
Hibiscus ? *sturtii*	0.1	10	RMQ46-05
Maireana melanocoma	0.2	40	RMQ46-01
Maireana planifolia	0.2	90	RMQ46-02
Paspalidium clementii	0.2	30	

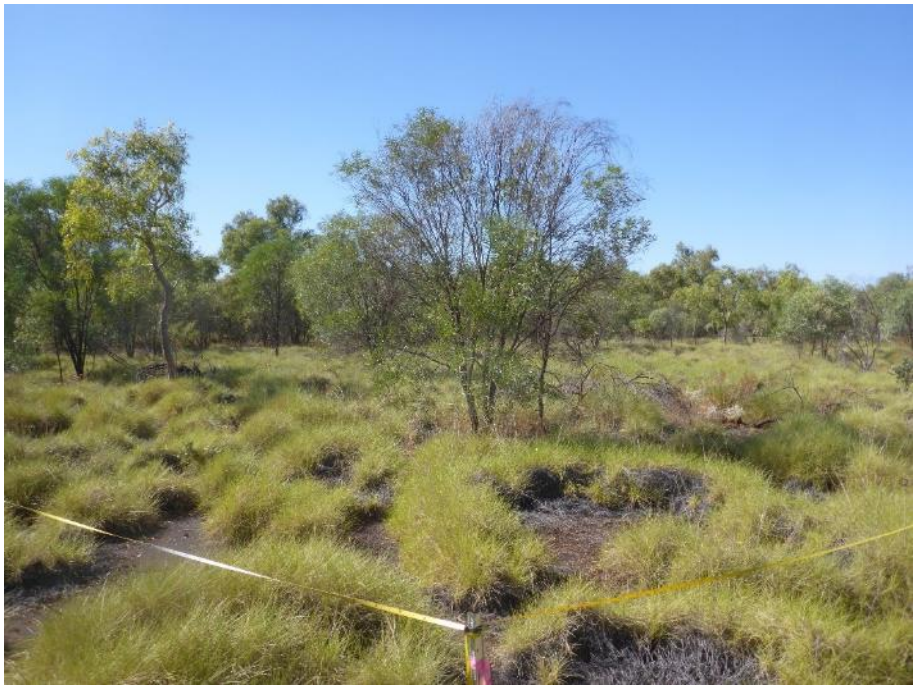
Taxon	Cover (%)	Height (cm)	Collection no.
Portulaca oleracea	0.1	10	
Ptilotus astrolasius	0.1	30	
Ptilotus exaltatus	0.1	90	
Salsola australis	0.1	50	
Sclerolaena costata	0.3	40	
Sclerolaena densiflora	0.1	15	RMQ46-03
Senna glutinosa subsp. x *luerssenii*	0.2	120	
Sida arsiniata	0.1	30	
Sporobolus australasicus	0.1	20	
Trianthema triquetra	1	3	
Trigastrotheca molluginea	0.1	15	
Triodia epactia	15	60	



Site	**RMQ47**				
Described by	KMc	Date	4/09/2021	Type	Quadrat 50 x 50
Season	Excellent				
Zone	50 K	Easting/Northing		399127 mE, 7592189 mS	
Habitat	Channeled floodplain				
Soil	Sandy loam				
Rock Type	Mixed colluvial				
Vegetation	*Acacia synchronicia* Mid Open Shrubland over *Triodia epactia* Open Hummock Grassland (with intermittent clay pans with ephemeral Open Forbland and Open Tussock Grassland)				
Veg Condition	VG				
Fire Age	> 10 yrs				

Taxon	Cover (%)	Height (cm)	Collection no.
Abutilon sp. Pilbara (W.R. Barker 2025)	0.1	40	
Acacia inaequilatera	0.1	90	
Acacia sclerosperma subsp. *sclerosperma*	0.3	200	RMQ47-07
Acacia synchronicia	25	200	
Amaranthus cuspidifolius	0.1	40	RMQ10R=
Arivela viscosa	0.3	70	
Boerhavia sp.	0.1	10	
Bonamia pannosa	0.1	10	
Bulbostylis barbata	0.2	20	
Calandrinia ptychosperma	0.1	15	
Cenchrus ciliaris	0.5	60	
Corchorus sidoides subsp. *sidoides*	0.1	40	
Corchorus tectus	0.1	60	
Corchorus tridens	0.1	10	
Cullen pogonocarpum	0.1	20	

Taxon	Cover (%)	Height (cm)	Collection no.
Cynodon prostratus	0.2	2	
Cyperus iria	0.1	20	RMQ47-05
Cyperus squarrosus	0.1	10	RMQ47-02
Dactyloctenium radulans	0.5	10	
Dichanthium sericeum subsp. *humilius*	0.1	30	RMQ47-08
Eragrostis crateriformis	0.1	20	
Eragrostis cumingii	0.1	10	
Eragrostis dielsii	0.2	5	
Eragrostis tenellula	0.2	35	
Euphorbia boophthona	0.2	20	
Euphorbia trigonosperma	0.1	30	
Euphorbia vaccaria var. *vaccaria*	0.1	10	
Evolvulus alsinoides var. *villosicalyx*	0.1	15	
Fimbristylis elegans	0.1	20	RMQ47-01
Goodenia forrestii	0.1	40	
Goodenia microptera	0.1	40	
Goodenia tenuiloba sens. lat.	0.1	20	
Gossypium australe	0.1	50	
Hibiscus sturtii var. *campylochlamys*	0.1	40	RMQ47-06
Marsilea costulifera	0.2	10	RMQ47-04
Notoleptopus decaisnei	0.1	40	
Paspalidium clementii	0.1	30	
Phyllanthus erwinii	0.1	25	
Pluchea ? tetranthera	0.1	20	RMQ10R=
Pluchea rubelliflora	0.1	3	RMQ47-03
Pluchea rubelliflora	0.3	50	
Polycarpaea corymbosa	0.1	10	
Portulaca oleracea	0.1	10	
Pterocaulon sphacelatum	0.1	40	
Ptilotus astrolasius	0.1	40	
Ptilotus auriculifolius	0.1	50	
Ptilotus axillaris	0.2	10	
Ptilotus exaltatus	0.1	60	
Sclerolaena costata	0.1	20	
Senna artemisioides subsp. *oligophylla*	0.1	20	
Senna notabilis	0.1	60	
Setaria verticillata	0.1	50	RMQ14R=
Sida arsiniata	0.1	50	
Solanum cleistogamum	0.1	10	
Solanum diversiflorum	0.1	40	
Sporobolus australasicus	0.2	15	
Streptoglossa bubakii	0.1	20	RMQ14R=
Streptoglossa decurrens	0.1	30	
Streptoglossa sp.	0.1	3	RMQ47-09
Synaptantha tillaeacea var. *tillaeacea*	0.1	10	
Trianthema triquetra	2	10	
Tribulus macrocarpus	0.1	10	RMQ10R=
Triodia epactia	15	50	



Site	**RMQ48**				
Described by	CG	Date	4/09/2021	Type	Quadrat
Season	Excellent				
Zone	50 K	Easting/Northing			
Habitat	Floodplain				
Soil	Sandy loam				
Rock Type	-				
Vegetation	*Corymbia hamersleyana* and *Acacia citrinoviridis* Low Open Woodland over *Triodia epactia* Hummock Grassland				
Veg Condition	E				
Fire Age	Long unburnt				

Taxon	Cover (%)	Height (cm)	Collection no.
Acacia citrinoviridis	7	600	
Acacia inaequilatera	0.1	100	
Acacia trachycarpa	0.1	180	
Afrohybanthus aurantiacus	0.1	20	RMQ48-12
Arivela viscosa	0.1	110	
Boerhavia repleta	0.1	15	RMQ48-01
Bonamia pannosa	0.1	25	
Bulbostylis barbata	0.1	20	
Corchorus tectus	0.1	25	RMQ48-05
Corymbia hamersleyana	2	800	
Cucumis variabilis	0.1	cr	
Dolichocarpa crouchiana	0.1	30	
Eriachne aristidea	0.1	20	RMQ48-11
Eriachne mucronata	0.5	40	RMQ48-10

Taxon	Cover (%)	Height (cm)	Collection no.
Euphorbia tannensis subsp. *eremophila*	0.1	65	RMQ48-03
Euphorbia trigonosperma	0.1	80	RMQ48-02
Euphorbia vaccaria var. *vaccaria*	0.1	20	
Evolvulus alsinoides var. *villosicalyx*	0.1	30	
Goodenia forrestii	0.1	30	
Goodenia microptera	0.1	40	
Gossypium australe	0.1	100	
Gossypium robinsonii	0.1	120	
Hibiscus burtonii	0.1	20	RMQ48-08
Indigofera boviperda	0.1	20	
Indigofera monophylla	0.25	10	
Isotropis atropurpurea	0.1	70	RMQ48-09
Notoleptopus decaisnei	0.1	50	
Paspalidium clementii	0.1	40	RMQ48-06
Ptilotus astrolasius	0.1	30	
Ptilotus axillaris	0.1	30	
Ptilotus exaltatus	0.1	120	
Ptilotus polystachyus	0.1	80	
Rhynchosia minima	0.1	60	
Senna glutinosa subsp. *glutinosa*	0.1	200	
Senna notabilis	0.1	50	
Setaria dielsii	0.1	60	
Sida arsiniata	0.1	40	
Sida echinocarpa	0.1	80	
Solanum cleistogamum	0.1	30	
Solanum diversiflorum	0.1	35	
Streptoglossa bubakii	0.1	40	
Trichodesma zeylanicum var. *zeylanicum*	0.1	140	
Trigastrotheca molluginea	0.1	20	
Triodia epactia	55	80	
Triodia wiseana	0.1	40	
Triumfetta chaetocarpa	0.1	30	
Triumfetta clementii	0.1	10	
Waltheria indica	0.1	25	

Site	**RMQ49**				
Described by	BRM	Date	4/09/2021	Type	Quadrat 62.5 x 40
Season	Excellent				
Zone	50 K	Easting/Northing		398604 mE, 7590592 mS	
Habitat	Foot slopes adjacent to major creek (EcEv)				
Soil	Sandy loam				
Rock Type	Ironstone, basalt, chert				
Vegetation	*Corymbia hamersleyana* Low Open Woodland over *Acacia citrinoviridis*, *Acacia trachycarpa*, *Acacia inaequilatera* Tall Open Shrubland over *Indigofera monophylla* Sparse Low Shrubland over *Triodia epactia*, *Triodia wiseana* Hussock Grassland				
Veg Condition	VG				
Fire Age					

Taxon	Cover (%)	Height (cm)	Collection no.
Abutilon ? sp. Dioicum (A.A. Mitchell PRP 1618)	0.1	80	RMQ49-10
Acacia ancistrocarpa	0.1	160	
Acacia arida	0.1	90	
Acacia citrinoviridis	3	450	
Acacia inaequilatera	0.25	230	
Acacia pyrifolia var. *pyrifolia*	0.1	400	
Acacia sclerosperma subsp. *sclerosperma*	0.1	260	
Acacia synchronicia	0.1	300	
Acacia trachycarpa	2	250	
Afrohybanthus aurantiacus	0.1	60	
Aristida holathera var. *holathera*	0.1	50	
Arivela viscosa	0.1	110	
Boerhavia coccinea	0.1	25	RMQ49-06
Bonamia pannosa	0.1	15	RMQ49-01

Taxon	Cover (%)	Height (cm)	Collection no.
Bonamia pilbarensis	0.1	50	RMQ49-13
Bonamia pilbarensis	0.1	20	RMQ49-08
Bulbostylis barbata	0.1	15	
Cenchrus ciliaris	0.25	40	
Cenchrus setiger	0.1	30	
Corchorus tectus	0.1	70	RMQ49-02
Corymbia hamersleyana	5	600	
Crotalaria medicaginea	0.1	45	
Digitaria ctenantha	0.1	30	
Eriachne mucronata	0.1	50	RMQ48-10=
Eucalyptus victrix	0.3	600	
Euphorbia tannensis subsp. *eremophila*	0.1	60	RMQ49-07
Euphorbia vaccaria var. *vaccaria*	0.1	15	
Evolvulus alsinoides var. *decumbens*	0.1	30	
Evolvulus alsinoides var. *villosicalyx*	0.1	20	
Goodenia forrestii	0.1	45	
Goodenia microptera	0.1	30	RMQ49-05
Gossypium australe	0.1	70	
Grevillea pyramidalis	0.1	210	
Hibiscus leptocladus	0.1	40	RMQ49-04
Hibiscus sturtii var. *campylochlamys*	0.1	25	RMQ49-12
Indigofera monophylla	0.25	40	
Malvastrum americanum	0.1	30	
Notoleptopus decaisnei	0.1	60	
Paraneurachne muelleri	0.1	50	
Paspalidium clementii	0.1	15	
Phyllanthus erwinii	0.1	20	
Phyllanthus maderaspatensis	0.1	40	RMQ49-03
Pluchea ferdinandi-muelleri	0.1	60	RMQ49-09
Polycarpaea corymbosa	0.1	20	
Ptilotus astrolasius	0.1	20	
Ptilotus axillaris	0.1	15	
Ptilotus calostachyus	0.1	70	
Rhynchosia minima	0.1	120	
Senna notabilis	0.1	50	
Sida arsiniata	0.1	45	
Sida sp. L (A.M. Ashby 4202)	0.1	30	RMQ49-11
Stylidium spathulatum	0.25	250	
Tephrosia rosea var. Fortescue creeks	0.1	70	
Themeda triandra	0.1	110	
Trichodesma zeylanicum var. *zeylanicum*	0.1	110	
Trigastrotheca molluginea	0.1	10	
Triodia epactia	40	70	
Triodia wiseana	5	45	
Waltheria indica	0.1	25	

Site	**RMQ50**				
Described by	BRM	Date	7/09/2021	Type	Releve
Season	Excellent				
Zone	50 K	Easting/Northing			
Habitat	Mesa butress and butress base				
Soil	Sandy loam				
Rock Type	Ironstone				
Vegetation	*Eucalyptus leucophloia* Low Isolated Clumps of Trees over *Acacia arida* Isolated Clumps of Shrubs over *Triodia wiseana* and *T. pisoliticola* Sparse Hummock Grassland				
Veg Condition	E				
Fire Age	> 10 yrs				

Taxon	Cover (%)	Height (cm)	Collection no.
Acacia arida	0.5	300	
Amaranthus undulatus	0.1	20	RMQ50-01
Bulbostylis barbata	0.1	12	
Corchorus tectus	0.1	20	
Cymbopogon ambiguus	0.1	90	
Cyperus cunninghamii subsp. *cunninghamii*	0.1	15	RMQ50-03
Dysphania rhadinostachya	0.1	45	
Eriachne mucronata	0.5	50	
Eriachne pulchella	0.1	20	
Eucalyptus leucophloia	2.5	600	
Ficus platypoda	0.1	80	RMQ50-02
Nicotiana benthamiana	0.1	50	RMQ50-04
Paspalidium clementii	0.1	20	
Ptilotus astrolasius	0.1	15	
Rhodanthe margarethae	0.1	45	
Streptoglossa decurrens	0.1	40	
Triodia pisoliticola	2	45	
Triodia wiseana	3	50	

Site	**RMRCG01**				
Described by	CG	Date	22/06/2021	Type	Releve
Season	Excellent				
Zone	50 K	Easting/Northing		398065.02 mE, 7593997.11 mS	
Habitat	Narrow drainage line on Mesa crest (discharges off Mesa and continues down Mesa slope to plain				
Soil	SandyLoam				
Rock Type	Ironstone				
Vegetation	*Eucalyptus leucophloia* Low Isolated Clumps of Trees over *Acacia arida* Mid Sparse Shrubland over *Triodia wiseana* and *T. pisoliticola* Open Hummock Grassland				
Veg Condition	E				
Fire Age	> 10 years				

Taxon	Cover (%)	Height (cm)	Collection no.
Acacia arida	12	200	
Acacia tumida var. *pilbarensis*	0.1	160	
Amaranthus sp.	0.1	15	RMRCG01-03
Arivela viscosa	0.1	50	
Cymbopogon sp.	0.1	100	
Dysphania rhadinostachya	0.1	40	
Eriachne mucronata	0.1	40	RMRCG01-02
Eucalyptus leucophloia	2	700	
Paspalidium clementii	0.1	24	RMQ02-13=
Phyllanthus sp.	0.1	40	RMRCG01-04
Ptilotus fusiformis	0.1	40	
Sida cardiophylla	0.1	25	RMQ13-01=
Triodia pisoliticola	5	90	RMRCG01-01
Triodia wiseana	12	70	

Site	**RMRKM01**				
Described by	KMc	Date	21/06/2021	Type	Releve
Season	Excellent				
Zone	50 K	Easting/Northing			
Habitat	Stony plain with clayey depressions				
Soil	ClayLoam				
Rock Type	Ironstone gravel pebbles cobbles				
Vegetation	*Eucalyptus leucophloia* Low Open Woodland over *Acacia citrinoviridis* Tall Sparse Shrubland over *Triodia wiseana* and *T. pisoliticola* Open Hummock Grassland				
Veg Condition	E				
Fire Age	Long unburnt				

Taxon	Cover (%)	Height (cm)	Collection no.
Abutilon sp.	0.1	120	RMRKM01-01
Acacia arida	0.1	160	
Acacia citrinoviridis	3	400	
Acacia tumida var. *pilbarensis*	0.25	300	
Amaranthus cuspidifolius	0.25	20	RMRKM01-03
Arivela viscosa	0.25	60	
Bulbostylis barbata	0.1	10	
Clerodendrum floribundum	0.1	160	RMRKM01-02
Corchorus sidoides subsp. *sidoides*	0.1	40	RMQ01-16=
Cucumis variabilis	0.1	cr	
Cymbopogon ambiguus	0.5	120	
Dysphania rhadinostachya	0.1	40	
Eriachne mucronata	0.5	40	
Eucalyptus leucophloia	15	700	

Taxon	Cover (%)	Height (cm)	Collection no.
Ficus brachypoda	0.1	90	
Paspalidium clementii	0.25	10	RMQ01-23=
Petalostylis labicheoides	0.1	120	
Senna glutinosa subsp. *glutinosa*	0.1	160	
Senna notabilis	0.1	30	
Senna venusta	0.25	120	
Solanum diversiflorum	0.1	20	
Solanum ellipticum	0.1	20	
Tinospora smilacina	0.1	cr	
Trachymene oleracea	0.1	40	
Triodia pisoliticola	15	70	
Triodia wiseana	15	70	

Site	**RMRKM10**				
Described by	KMc	Date	1/09/2021	Type	Releve
Season					
Zone	50 K	Easting/Northing		399075 mE, 7591483 mS	
Habitat	Creek bed and immediate bank				
Soil	Loamy sand				
Rock Type	Colluvial mix creek				
Vegetation	*Melaleuca argentea* and *Eucalyptus camaldulensis* subsp. *reflugens* Mid Open Forest over *Melaleuca glomerata* Tall Open Shrubland over *Cyperus vaginatus* Open Sedgeland				
Veg Condition	VG				
Fire Age	> 10 yrs				

Taxon	Cover (%)	Height (cm)	Collection no.
Acacia colei var. *colei*	0.2	250	
Acacia pyrifolia var. *pyrifolia*	0.1	180	
Acacia synchronicia	0.1	90	
Acacia trachycarpa	0.1	180	
Afrohybanthus aurantiacus	0.1	30	
Alternanthera nodiflora	0.1	40	
Ammannia multiflora	2	40	
Arivela viscosa	0.1	40	
Bergia pedicellaris	0.1	10	RMRKM10-05
Bergia trimera	0.1	10	RMRKM10-08
Blumea tenella	0.1	15	
Cenchrus ciliaris	0.3	50	
Centipeda minima	0.1	10	
Corchorus tridens	0.1	10	

Taxon	Cover (%)	Height (cm)	Collection no.
Crotalaria medicaginea	0.1	40	
Cyperus difformis	0.2	60	RMRKM10-01
Cyperus leptocarpus	0.1	10	RMRKM10-10
Cyperus vaginatus	3	90	
Eleocharis atropurpurea	0.2	10	RMRKM10-04
Eragrostis cumingii	0.2	10	
Eragrostis tenellula	0.3	30	
Eriachne flaccida	0.1	90	
Eulalia aurea	5	90	
Euphorbia trigonosperma	0.1	40	
Evolvulus alsinoides var. *decumbens*	0.1	40	
Goodenia lamprosperma	0.1	50	
Goodenia microptera	0.1	30	RMRKM10-09
Gossypium robinsonii	1	300	
Ipomoea muelleri	0.1	cr	
Malvastrum americanum	0.1	40	
Marsilea costulifera	0.2	10	RMRKM10-07
Melaleuca argentea	42	1400	RMRKM10-06
Melaleuca glomerata	15	400	
Petalostylis labicheoides	0.2	300	
Phyllanthus maderaspatensis	0.1	40	
Pluchea rubelliflora	1	40	
Pseudognaphalium luteoalbum	0.1	10	RMRKM10-11
Rotala diandra	0.3	10	RMRKM10-02
Rotala mexicana	0.3	10	RMRKM10-02
Schenkia australis	0.1	40	RMRKM10-03
Senna notabilis	0.1	40	
Sesbania cannabina	0.5	180	
Sporobolus australasicus	0.2	15	
Stemodia grossa	0.1	10	
Tephrosia rosea var. Fortescue creeks	0.1	90	
Triodia epactia	1	60	
Vigna lanceolata var. *lanceolata*	0.2	cr	
Wahlenbergia tumidifructa	0.2	30	

Site	**RMRKM11**			
Described by	KMc	Date	Type	Releve
Season	Excellent			
Zone	50 K	Easting/Northing		397386 mE, 7592827 mS
Habitat	Mesa edge			
Soil	-			
Rock Type	-			
Vegetation	*Eucalyptus leucophloia* Low Isolated Clumps of Trees over *Triodia wiseana* and *T. pisoliticola* Hummock Grassland			
Veg Condition	-			
Fire Age	-			

Taxon	Cover (%)	Height (cm)	Collection no.
Acacia arida	0.1	70	
Acacia bivenosa	0.2	70	
Acacia tumida var. *pilbarensis*	0.1	220	
Cymbopogon ambiguus	0.1	90	
Dysphania rhadinostachya	0.1	40	
Eriachne mucronata	0.1	30	
Eucalyptus leucophloia	3	900	
Paspalidium clementii	0.1	10	
Ptilotus exaltatus	0.1	90	
Senna glutinosa subsp. *glutinosa*	0.1	120	
Triodia pisoliticola	1	60	
Triodia wiseana	50	60	